

ANNUAL REPORT
OF THE
SURVEYOR-GENERAL
OF THE
STATE OF CALIFORNIA

[B. B. REDDING, STATE PRINTER.

REPORT.

SURVEYOR GENERAL'S OFFICE,
Sacramento, December 15, 1854.

To HIS EXCELLENCY JOHN BIGLER,
Governor of California:

Sir: -

In compliance with "An Act concerning the office of Surveyor General," I respectfully submit the following report:

THE NORTHERN BOUNDARY SURVEY.

The Legislature of this State, near the close of the last session, appropriated three thousand five hundred dollars for the survey of the portion of the Northern Boundary of the State lying between the coast and Pilot Knob, a sum by no means adequate to an "accurate and complete survey by astronomical observations, and linear surveys," as required by the "Act concerning the office of the Surveyor General," insufficient, in fact, to have placed the instruments required for such a survey upon the ground.

As it was impracticable, under existing laws, for the Surveyor General to even visit the scene of operations, it was important to secure the services of a competent, energetic and trustworthy man, to place in charge of the expedition.

With this view I communicated, personally or by letter, with no less than nine Surveyors and Engineers, of whom two, at least, had been engaged in similar surveys, and all of whom were known to me personally or by reputation.

Nearly all declined the position, some questioning their competency, others in consequence of the smallness of the appropriation.

Mr. T. P. Robinson, County Surveyor of Klamath, after some hesitation, accepted. For the instructions issued to Mr. Robinson, and for his report. I respectfully refer to appendix A.

In the appendix to his report may be found a statement of the expenses of the survey. The statement shows bills to the amount in scrip of \$4,874 95. This sum, multiplied by 72 ½ cents, which is about the average price realized for the scrip, gives \$3,534 37 as the cash expenditure, or but \$34 37 more than the appropriation.

Total of bills in scrip,.....	\$4,874 95
Deduct appropriation,.....	<u>3,500 00</u>

Deficiency which is due Mr. Robinson,.....	1,374 85
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Mr. Robinson rendered two and one half's month's service at \$500 per month,.....	\$1,250 00
Paid necessary expenses from private funds,.....	<u>282 33</u>
Total.....	1,532 33
Deduct Controller's warrant for balance of appropriation issued to Mr. R. on settlement,.....	<u>\$157 38</u>
Leaving amount due Mr. Robinson, as above,.....	1,374 95

It was intended to keep the expenditure within the limits of the appropriation, but, at the departure of Mr. R. from San Francisco, it was supposed that scrip would be worth ninety-five cents by the time of completion of the survey.

I would here express the opinion that Mr. Robinson has faithfully performed the duties assigned him, and would therefore respectfully recommend that he be immediately paid the amount to which he is justly entitled.

Mr. Robinson was assisted by Messrs. Van Cleft and Thompson, Civil Engineers, at small salaries.

Mr. Thompson has a map of the country adjoining the line, in progress, which I will transmit as soon as received, trusting that he may be reasonably remunerated for the same, as it will undoubtedly exhibit much valuable information in regard to the topographical features of that region.

I take pleasure in calling attention to the fact that Messrs. L. G. Chapman and James Van Dyke generously volunteered their services on the survey, and Mr. R. informs me they were inferior to none of the party in efficiency.

COUNTY BOUNDARIES.

During the year I have been requested frequently to survey County boundaries but with these requests I could not comply for the want of an appropriation.

The County of Stanislaus was created, by Act of the last Legislature, and the boundary between it and Tuolumne ordered to be run by the County Surveyors of the two Counties. The initial point was the "corner of Calaveras and San Joaquin on the Stanislaus."

This corner has been established by Mr. Whiting, County Surveyor of San Joaquin, and myself as County Surveyor of Calaveras. It was the result of a compromise proposed by Mr. Whiting and accepted by myself, agreed to by the Commissioners and assented to by the Courts of Sessions of both Counties, and should, therefore, have been considered as established.

It appears by the returns, however, that it was not considered so by either Surveyor, and it appears that they could not agree with each other, but ran independent lines. The "Act dividing the State into Counties, and establishing Seats of Justice therein," and one or more of the acts supplementary thereto, are not quite so clearly expressed as to render a difference of opinion entirely unnecessary on some points. It is unnecessary, however, to say anything further upon this subject in this report.

It may be advisable to declare one of the lines as run to be official, at the same time I submit that in view of the many similar cases of disagreement which may occur in like manner, that one Surveyor, disinterested or subject to the order of the Surveyor General, will survey boundary lines more economically than two who are interested and independent of such order.

I would recommend, when practicable, the substitution of natural for artificial boundaries, and where this is impracticable, I would recommend, as far as it can be done, the adoption of lines of the United States Surveys.

A reference to the reports of County Surveyors will show the necessity of having many of the boundaries run during the coming year. But, independent of this, the necessity of obtaining data for an accurate map of the State, would justify considerable expenditure.

I would, therefore, recommend that twenty thousand dollars be appropriated to be expended in such surveys during the year 1855.

MAP OF THE STATE.

The official map of California is comparatively worthless in consequence of its great inaccuracy. This fact is established by the almost unanimous testimony of County Surveyors and others, so far as I am in possession of their evidence.

Of the great necessity of having an accurate map I consider it superfluous to speak, and will only refer to some pertinent remarks in the communications of Geo. H. Goddard, Civil Engineer, in appendix F.

A survey of County boundaries is also necessary, but this is sufficiently discussed in another part of this report.

Under the head of "County Roads" I have made some suggestions, which, if acted upon, will tend greatly towards furnishing an accurate map.

A competent draftsman should be constantly employed in this office, in compiling from all reliable data now processed, and what may be hereafter obtained, a map worthy to be stamped "official."

I therefore recommend an appropriation for this purpose.

COUNTY ROADS.

A good common road system is certainly not one of the least desirable objects to be attained by the judicious legislation, and being of the opinion that this State is not now in the possession of such a system, I am induced to submit respectfully the following remarks:

The attempt to construct roads wholly by a poll-tax of labor, is inexpedient and unjust, and in this and other States has resulted in miserable failures. It is a system that would impoverish any man or company of men, if preserved in, and cannot be the proper one for a State.

I recommend that it be abolished and a poll-tax of money substituted, and as the value of property is increased by improving roads, I would also recommend a property tax, to raise a fund to be expended wholly in laying out and constructing roads and bridges.

Roads should be laid out in all cases by skillful Civil Engineers, and not by them without a survey embracing the taking of levels, as well as the courses and distances.

No man is competent to select the best possible route for a common road, without the use of a leveling instrument of some kind, for a change of grade so slight as scarcely to be perceived by the unaided eye, may increase or diminish the force of traction fifty per cent.

I would, therefore, recommend that none but Civil Engineers be eligible to the office of County Surveyor after the expiration of the term of office of the present incumbents.

The County Surveyor and Engineer should lay out all new roads, make maps and profiles of the same, also plans for bridges, etc., and an estimate of the cost of construction, all of which, together with the actual cost by items after construction, and estimate of amount of traffic, should be forwarded to this office.

The maps, made on some convenient scale, designated by the Surveyor General to secure uniformity, should embrace the topography of as much of the surrounding country as circumstances would permit. From data thus obtained and those to be obtained from the surveys of the County boundaries, also from the United States surveys and other sources, an accurate map of the State could be compiled at no very distant day. In furtherance of this object, as well as with a view to the improvement of the routes, all the roads in the county should be surveyed as soon as practicable.

The County Surveyor and Engineer should have the general supervision of the roads in the County, and should, as early as practicable, make out an apportionment of the Road Fund on a proper basis, reserving a part of said fund for contingencies, which apportionment should be submitted for the approval of the Board of Supervisors or Court of Sessions, as the case may be.

The Surveyor and Engineer, after his plans and apportionment shall have been approved, should proceed as soon as practicable, under proper restrictions, to effect the proposed improvements.

Works involving considerable expenditure might be most economically constructed under the contract system. In all cases the works should be constructed in accordance with the specifications, and to the acceptance of the Engineer.

The compensation should be such as to induce skillful Engineers to desire the office of County Surveyor and engineer, and none should be required to render services without a fair remuneration; for it is in vain for a State or County to expect the services of competent and honest men at rates far below those which may be obtained from individuals.

Feeling confident that the above proposed system would be a great improvement upon the present one, the only argument in favor of which, so far as I am aware, is that it has been very extensively adopted, but never with good results, I present the same anxiously hoping it may be adopted.

THE CALIFORNIA AND MISSOURI MAIL STAGE ROAD, AND THE ATLANTIC AND PACIFIC RAILROAD.

As sufficient time and money have been already expended in discussing the question of the practicability of the Atlantic and Pacific Railroad, to have decided the

question in the affirmative by constructing it, I shall say nothing upon this point. Nor need I speak of its great necessity, for all that I could say would not make this more apparent than it is already.

I would respectfully recommend that an appropriation be made for the purpose of locating and constructing the portion or portions of the proposed California and Missouri Stage Road, lying between some point or points in the great central valley of this State, and its eastern boundary.

This I believe to be the most judicious manner in which the State can aid in establishing communication by a line of stages with the Atlantic States.

Besides the surveys necessary for the location of this road, others should be made sufficient to determine the practicability of the proposed routes within this State for the Atlantic and Pacific Railroad.

If this be done by the State and should be met by corresponding action by the General Government, we may expect soon to see the Stage Road in operation, and know something in regard to the practicability of the Railroad.

From what is now known, and what will be made public during the present session of Congress, it will not be difficult to decide what routes should be surveyed.

I would recommend that in connection with these surveys, the position of Carson Valley in regard to the State line, should be accurately determined.

It is very desirable that further information be obtained concerning the amount of snow that may be encountered in the most practicable passes of the Sierra Nevada.

I am under considerable obligations to Geo. H. Goddard, Civil Engineer, and to Dr. O. M. Wozencraft, for information upon these subjects, kindly furnished by them communications constitute a portion of appendix F.

From the importance of the project and the well known character of the man we may not only desire but also anticipate important results.

For some important information on these subjects, I would refer to the reports of some of the County Surveyors. The remarks of Silas Wilcox, County Surveyor of Stanislaus, in regard to the navigation of the San Joaquin are well worthy of attention, and it may be worth while to ascertain what are the facilities for navigation beyond the point he has mentioned.

For the surveys recommended, and the construction of the Stage Road within this State, I recommend an appropriation of one hundred thousand dollars.

Much important information and many valuable suggestions will probably be found in the forthcoming report of a committee recently appointed in San Francisco, to obtain and report upon information relating to this subject, which will render any omissions unimportant.

RAILROAD AND WAGON ROAD COMPANIES.

To facilitate the construction of a correct map of the State, I would recommend that Railroad and Wagon Road Corporations be required to send to this office maps of their respective roads, made on such scale as the Surveyor General may designate, which shall exhibit accurately the topography of the adjoining country.

I would also recommend that Rail Road Companies be required to report to this office, as in the State of New York, the amount of stock, debts, cost of construction and

equipments, the amount of business both passenger and freight; cost of maintenance of road-way, of repairs of machinery, of operating, their earning, receipts and payments; number, kind and cause of accidents; and all other useful information which the State may with propriety demand.

Analogous requirements, varied to suit the nature of the cases, might be made of the Wagon Road Telegraph Companies.

THE SEPARATION OF AGRICULTURE AND MINERAL LANDS.

It is believed that an early separation of the Agricultural from the Mineral Lands, and such modification of the pre-emption laws as would make them applicable to the agricultural lands in the mineral regions, would conduce to the increased prosperity of both miners and agriculturists in those regions.

I would recommend a memorial to Congress upon the subject.

STATE LANDS.

According to the Report of the Commissioner of the General Land Office, of November 30, 1853, the area of this State, exclusive of water surface, is 188,981 square miles, or 120,947,840 acres.

There have been donated to this State by Act of Congress 6,791,324 acres, consisting of the 16th and 36th sections, for the support of Schools; also, two Townships, or 46,080 acres for Universities, which amounts, together with the 500,000 acres granted to the State for Internal Improvements – but by our Constitution devoted to the cause of Education – constitute the sum of 7,265,404 acres of land, from which, if judiciously selected and disposed of, California may derive a magnificent fund for the education of her children.

Under “An Act to provide for the disposal of the 500,000 acres of land granted to this State” for “Internal Improvements,” there have been issued from the Controller’s office 808 Warrants, for 160 acres each, and 321 Warrants for 320 acres each, making a total of 232,000 acres, leaving, unsold, Warrants for 268,000 acres.

From the 7,265,404 acres of “School Lands” of California, deduct the 232,000 acres for which Warrants have been sold, and we have still, to be selected and disposed of by the State for educational purposes, 7,033,404 acres.

In the Appendix may be found an “Abstract of School Land Warrant Returns,” from which there appears to have been located an recorded, prior to January 1, 1854, 114,080 acres.

From the above must be deducted for “informal returns” of 160 acre Warrants, 2,720 acres. For 160 acre Warrants returned twice, 2,400 acres. For 320 acre returned twice, 1,280 acres; and for Warrants “floated” prior to Jan. 1, 1854, the returns of which have been received since that time, 1,280 acres, making a total of 7,680 acres; leaving, as properly located and recorded in this office prior to January 1, 1854, 106,400 acres.

Since January 1, 1854, returns have been received for 32,160 acres, of which number, 160 acre Warrants for 10,240 acres were returned twice, or “informal,” which, being deducted, leaves as properly located and returned during the year 1854,

Warrants for 16,480 acres, to which sum add amount previously located (106,400 acres) and we have, as properly located and returned under the Act, 122,880 acres.

My predecessor, in his Annual Reports, urged the adoption of measures to prevent fraudulent locations of School Land Warrants. I respectfully renew the recommendation, and, for an argument in favor of the same, beg leave to refer to the "Abstract" and "Notes" in the Appendix.

There are instances in which an individual has located Warrants for several thousand acres. I would recommend such a modification of the law as will prevent this species of monopoly for the future.

Whenever the 16th and 36th sections shall have been taken up, previous to their survey by the General Government, and when they shall fall upon mineral lands, the State must look elsewhere for an equivalent.

Upon the best lands in the State the settlers are far in advance of the Surveyors, and are likely to continue so for some time to come; and it is clearly apparent that unless judicious measures shall be adopted by the ensuing Legislature for the selection of these lands, so far as it can be done under existing laws of the United States, and unless Congress be effectually requested to modify the laws in relation to the subject, California will be a great sufferer, and the apparently munificent donation of the General Government will prove to be in reality comparatively worthless.

Under existing laws the General Government may "keep the word of promise to the ear," but will inevitably "break it to the hope."

Nor are the laws much better adapted to the wants of the settler; but, as I have on this point, to a great extent, been anticipated by William L. Dewitt, Esq., County Surveyor of Sacramento, in his Report, which may be found in the Appendix, which I herewith transmit, I respectfully refer to the same, as containing many very important suggestions upon this and other subjects, in all of which I fully concur.

I would also call attention to some valuable suggestions in the Report of William J. Lewis, Esq., County Surveyor of Santa Clara.

There have been granted to this State by Act of Congress, for the erection of Public buildings, ten sections, or 6,400 acres of land.

Congress has also granted to this State the "swamp and overflowed lands," and lands "subject to overflow" at certain seasons of the year.

In the absence of reliable data, I estimate those lands at not less than 5,000,000 acres, which, added to the other lands belonging to the State, make an aggregate of more than 12,000,000 acres, or one tenth of the whole area of the State, exclusive of water surface.

On the very important subject of the State lands, information of value may be found in several Reports of County Surveyors, particularly in that of Mr. H. Patton, County Surveyor of Solano; and I would especially recommend, as worthy of consideration, his statement concerning the swamp and overflowed lands, and the facility with which a large and valuable part can be reclaimed. Mr. P. has been at great pains to obtain information, which he has embodied in a map of Solano County, as may be seen by reference to a letter attached to his Report, for which he desires \$200. I am of the opinion that Mr. Patton has earned the \$200, and that the results of his labors are well worth the price he asks, and would therefore recommend the purchase of the map as both politic and just.

I have made as comprehensive an abstract of County Surveyor's and Assessor's Reports as the circumstances would permit, which constitutes App. "D."

By an examination of the Circular to County Surveyors, dated June 1, 1854, will be seen the kind of information which I have endeavored to obtain, to present in my Report. Two copies of this Circular have been sent to each County Surveyor in the State, and to some of them, several. The same remarks are, to some extent, applicable to County Assessors and their Circular.

To the County Surveyors of those Counties in which are swamp and overflowed lands, to any great extent, I have also written, using such arguments as presented themselves, to induce them to send in all the information which they could obtain concerning these lands.

The best of all inducements, and one which I sincerely hope may be provided hereafter, viz., reasonable pecuniary remuneration for all services required, was not at my disposal.

My predecessor, in his last Report, states:

"The number of Reports sent in is conclusive, that parties will not work without pay; and therefore the law is entirely in-operative, and had better be repealed or properly amended."

He had received but "three from County Surveyors and two from County Assessors."

Being warned by this statement, in accordance with the example of my predecessor, who had been favored by Mr. King, former U. S. Surveyor General, with a full statement of the then condition of the Government Surveys, I wrote to the present U. S. Surveyor General, on the 7th of November last, stating that I desired to "place such information before the Legislature that proper action might be taken to secure to California the lands to which she is entitled."

I expressed a desire to obtain a "map which should exhibit the condition of the United States Surveys at its date, and the character and topography of the country embraced by said Surveys; also, what is townshipped and what is sectioned, as well as what progress will probably be made during the year 1855;" also, that it might "indicate the swamp and overflowed lands," and the "Mexican grants" which have been surveyed.

Having observed that in other States the quantities of land returned as "swamp and overflowed" by the U. S. Deputy Surveyors, differed in some cases by several millions of acres from the amount recommended by the Surveyor General to be donated to the State, which recommendation was based upon evidence presented by the State as to the character of these lands, and having observed also a diversity of interpretations of law and "instructions" relative to the "swamp and overflowed lands," and supposing this might be the case in this State, and entertaining the recommendation of the U. S. Surveyor General would exert great influence on the Department at Washington in deciding what lands should be given to the State, and supposing him to be governed by the same "instructions" as the Surveyors General of other States, I wrote as follows:

"As there appears to be a diversity of opinion among Surveyors General to the construction of the law concerning 'swamp and overflowed lands, and the 'instructions' from the Commissioner of the General Land Office, and as the Legislature will undoubtedly consider it necessary to make provision for having the 'necessary affidavits

of County Surveyors and other respectable persons, laid before the U. S. Surveyor General of this State, I would respectfully request from you a statement of what would be sufficient to establish the fact that any subdivision is 'swamp and overflowed land' or 'subject to overflow.'"

I also requested him to "be kind enough, at an early day, to inform me what I can obtain, if anything, and at what expense."

For his reply I respectfully refer to Appendix "F," and can only regret that his Report will not be published in time to be of any service to the Legislature during the ensuing session, as the information desired would greatly facilitate the devising of a plan to hasten the securing of these lands to the State.

It appears desirable that these 12,000,000 acres of land should be secured, - judiciously selected and disposed of. The swamp and overflowed lands should be surveyed and sold, and measures taken for their reclamation. They can be reclaimed most economically by a general system. Data should be collected as soon as practicable, on which to base such a system. I would recommend the creation of a Board of Land Commissioners, (of which the Surveyor General shall be the executive officer,) with full power, under proper restriction, to make all necessary surveys, and to transact all business necessary to secure to California the greatest possible benefit to be derived from an early and judicious selection and disposal of these lands.

I respectfully suggest that the State board of Education constitute said Land Board, also that the price of lands should be *graduated*, and that the Surveyor General be authorized to open books for the registry of such lands as persons may be desirous of purchasing from the State.

COUNTY SURVEYORS AND COUNTY ASSESSORS, AND THEIR REPORTS.

I have received reports from but nineteen County Surveyors. My predecessor last year received but three.

LIST OF COUNTY SURVEYORS FROM WHOM REPORTS HAVE BEEN RECEIVED FOR THE YEAR 1854.

H. A. Higley,	County Surveyor of	Alameda.
John C. Reid,	" "	Calaveras.
Wm. Henderson,	" "	El Dorado.
Alfred D. Easkoot,	" "	Marin.
O. M. Dickinson,	" "	Mariposa.
E. A. Hennecourt,	" "	Napa.
C. W. Finley,	" "	Placer.
Jobe S. Taylor,	" "	Plumas.
Wm. L. Dewitt,	" "	Sacramento.
A. M. Stoddard,	" "	San Bernardino.
J. J. Gardiner,	" "	San Francisco.
Geo. E. Drew, Dep.,	" "	San Joaquin.
Wm. J. Lewis,	" "	Santa Clara.
E. C. Gillette, Ex.,	" "	Shasta.

M. H. Stone,	County Surveyor of	Sierra.
W. G. Still, Dep.,	" "	"
E. M. Stevens,	" "	Siskiyou.
H. Patton,	" "	Solano.
Silas Wilcox,	" "	Stanislaus.
Wm. W. Finney,	" "	Tuolumne.

Nearly all of the above named reports contain valuable information or suggestions, yet for the labor expended in obtaining this information, County Surveyors are allowed no compensation, which, in my opinion, is neither just nor expedient. It is, therefore, respectfully recommended that the laws be so modified that they may receive reasonable compensation for all services rendered by them; also, that such penalties be affixed as will insure a faithful performance of all their duties.

By special acts, some of the County Surveyors are now provided with offices, while others are not. It is recommended that all be supplied at the expense of the Counties.

I have placed marks along the margin of such portions of the reports as are considered most deserving of notice, and those portions that are considered particularly so, are italicized. I will also name the reports of Wm. L. Dewitt, of Sacramento, Wm. J. Lewis, of Santa Clara, and H. Patton, of Solano; of which all of the first, and some portions of the second, and much of the last, deserve examination.

I respectfully recommend that the County Surveyors be required to make such meteorological observations as the Surveyor general may consider requisite, and keep a record of the same, a copy of which shall be sent to this office.

With such changes in present laws as are recommended, this office may in a short time, with trifling expense, become a storehouse of information of great value to the people of this State, and of great use to those whose province it is to make our laws.

I have received reports from but eleven County Assessors. Last year my predecessor received but two.

LIST OF COUNTY ASSESSORS FROM WHOM REPORTS HAVE BEEN RECEIVED FOR THE YEAR 1854.

G. W. Gouchee,	County Assessor of	Alameda.
H. A. Eichelberger,	" "	Amador.
Miles Chapin,	" "	Butte.
J. M. Jones,	" "	Contra Costa.
D. D. Williams,	" "	Humboldt.
A. F. Coronel,	" "	Los Angeles.
V. J. Herring,	" "	San Bernardino.
O. C. Terrill, Dep.,	" "	San Joaquin.
S. E. Jack,	" "	Shasta.
Francis M. Proctor,	" "	Sierra.
D. P. Diggs,	" "	Yolo.

I know of no reasonable excuse for a failure on the part of County Assessors to comply with the present laws in regard to the collection of statistics for this office.

I respectfully recommend that it may be made unlawful to audit or settle their accounts until they declare on oath that they have complied in this respect, to the best of their ability, with the statutes.

THE STATE LIBRARY.

It is respectfully requested that the laws may be so amended that the Surveyor General may be allowed to visit and consult the State Library, at all times during proper hours, when his duties may render the same necessary.

It is sometimes necessary to examine laws on subjects extending through several volumes, in which cases it is a slow and tedious process to take the books home in pairs for examination, and may consume hours in the attainment of what might be acquired in as many as minutes, if free access to the library were allowed. It may be necessary to consult maps which cannot or should not be taken from the library, yet I know of no way in which this can now be done.

I am inclined to think it would be a charge for the better to place the scientific portion of the library in charge of the Surveyor General, for it has a more natural connection with his office than with any other. It may not be inexpedient to allow him to expend a portion of the Library Fund in purchasing such scientific works as a faithful performance of his duty may render almost indispensable.

Should the suggestion to attach the scientific portion of the library to this office be adopted, I would recommend that it be thrown open to the public, that all who desire to do so may enter and partake freely of its treasures.

The adoption of the last suggestion would be in accordance with the clause of the constitution requiring the Legislature to "encourage by all suitable means the promotion of intellectual, scientific, moral and agricultural improvement."

THE GEOLOGICAL SURVEY OF THE STATE AND THE CALIFORNIA ACADEMY OF NATURAL SCIENCES.

I trust that I may not be considered as intruding upon the province of another, or traveling out of my own, in calling attention to the above named project and institution.

The geological survey of the State is so vast and important a work, that instead of the labors of an individual, however scientific, it demands the united and untiring efforts of half a score of the ablest scientific men of our country; and it is to be greatly regretted that our State is not in a condition to devote annually a large sum for the continuation of this important survey.

The Academy of Natural Sciences, without pecuniary assistance, and out of pure love for those noble branches of science which have not, until a comparatively recent date, commanded a tithe of the attention which their importance demands, are engaged in researches requiring expenditure of both time and money; and I would recommend such pecuniary encouragement to the society as an enlightened economy may suggest.

THE SURVEYOR GENERAL AND HIS OFFICE.

It is the duty of the Surveyor General, when required by law, to make an "accurate and complete survey by astronomical observations and linear surveys of the boundaries of the State."

It is his duty also to "make an accurate map of the State," and to survey the boundaries of the Counties, incorporated cities and towns of the State.

He is Chief Engineer and Commissioner of Internal Improvements, and it is his duty to present annually, with his report, "plans and suggestions for the improvement of the internal navigation of the State, and for the construction and improvement of roads, turnpikes, railroads, canals and aqueducts; also, plans and suggestions for the planting, preservation and increase of forest trees, for the draining of marshes, prevention of overflows, and irrigation of arable lands by means of reservoirs, canals, artesian wells or otherwise."

It is his duty to collect the agricultural and other statistics of the State, and to inquire into the cause and cure of any diseases to which its vegetable productions may be subject, and to "perform all such other and further duties as may be prescribed by law."

An efficient performance of all the duties of this office requires an engineer of no ordinary acquirements; it was therefore with no small degree of surprise that the present incumbent heard of his nomination to the office.

His surprise was great on learning the smallness of the salary, it being but about three-fourths that of a Page of the Senate or Assembly, and but a little more than one-fourth that of his predecessors, and equaling in value but little more than half that of the corresponding officer in the State of New York, and about half that paid for three months service of members of the Board of Engineers appointed to examine the grades of the streets in San Francisco.

This surprise was changed to astonishment at the introduction of a bill into the last Legislature, to reduce the salary to one hundred dollars per annum, while several bills for the appointment of agents to perform duties for which the Surveyor General ought to be particularly qualified, were being discussed and advocated by all parties in both houses.

This was well calculated to bring this office into contempt, and may be one reason why so small a number of reports have been sent in by Surveyors and Assessors during the year. Not even an acknowledgement of the receipt of the circular has been received from the Surveyor of the county, in which the introducer of this one hundred dollar amendment resides.

In conclusion, I beg leave to recommend that such appropriations be made as will enable the Surveyor General to perform his duties with some satisfaction to himself and benefit to the State; also, that the salary be increased sufficiently, to insure the services hereafter of an able Engineer; but if it be considered inexpedient to adopt these suggestions, I would then recommend that measures be taken to abolish the office.

It was my intention to have devoted a little time to the Agriculture of California, but having been informed that an elaborate memorial upon this subject, is being prepared by a gentleman of ability and extensive knowledge, which will be presented to the Legislature at an early day, I leave it in abler hands.

All of the foregoing is respectfully submitted.

S. H. MARLETTE,
Surveyor General.

P. S. An article upon the geology of a portion of Calaveras County has been kindly furnished by William Patton Esq.

I am greatly obliged to V. Wackenreuder, Ex. County Surveyor of Santa Barbara, for a very neat map of that county.

NOTE. – Some entire reports, and portions of many others, and several of the communications, as well as the tables, constituting the appendix, are considered as worthy of being printed, and the same is therefore recommended.

S. H. M.

APPENDIX.

[A.]

NORTHERN BOUNDARY SURVEY.

INSTRUCTIONS TO T. P. ROBINSON.

SURVEYOR GENERAL'S OFFICE,
SACRAMENTO, May 10, 1854.

T. P. ROBINSON, ESQ.,
County Surveyor of Klamath County.

Sir:

You are hereby authorized to proceed, without delay, to San Francisco, to procure the instruments necessary for the running and marking of that portion of the Northern Boundary of this State, lying between the Coast and Pilot Knob, or so much of it as the appropriation (\$3,500) will allow.

I would call your attention to "An Act concerning the office of the Surveyor General," by which you will be governed in your operations.

You will cause to be erected, permanent and plainly visible monuments, as often as you may think necessary, in order that the line may be readily traced.

You will fix, with great care, your Initial Point, and, if possible, complete the survey before the first of August, as the law requires.¹

You will keep a Journal of your proceedings, and, in your Report, give as correct a description of your operations, and of the country which you traverse, as the circumstances will allow.

You will have the Topography of the country as extensively taken as may be practicable, without delaying too much the progress of the survey.

You will also have observations taken, to determine the positions of the various mountains in California, of which you may obtain a sight, during the survey; in short, you will obtain, and furnish to this office, every fact which may be of value to the State.

I am, very respectfully,
Your obedient servant,

S. H. MARLETTE,
Surveyor General.

¹ The bill, when shown to me, required the survey to be completed by the first of August, but was afterwards changed to the first of September, without my knowledge. Shortly after my return from San Francisco, whither I had gone to assist Mr. R. in making arrangements for the expedition, I obtained a copy of the act, and forwarded it to him at Crescent City.

SAN FRANCISCO, May 23, 1854.

Sir:

You will be assisted, on the Northern Boundary Survey, by Mr. George H. Van Cleft and Mr. A. W. Thompson, Civil Engineers. What other assistance you require, you informed me you will be able to obtain in Klamath County. You will please report to me, at Sacramento, as often as you can, conveniently, the progress you shall have made, from time to time, in the survey. You will, of course, have *full charge* of the whole operations, and will be held responsible for the same.

I am, very respectfully,
Your obedient servant,

S. H. MARLETTE,
Surveyor General.

T. P. ROBINSON, ESQ.,
County Surveyor of Klamath County.

REPORT ON NORTHERN BOUNDARY SURVEY.

SACRAMENTO CITY, July 30, 1854.

Sir:

Having been duly appointed by you as Deputy Surveyor of a portion of the Northern Boundary of the State of California, I beg leave to submit the following Report: Pursuant to your instructions, dated at Sacramento, May 10th, 1854, I proceeded to San Francisco and procured such instruments as were deemed necessary for the execution of the work.

An Aneroid Barometer, a Chronometer and an ordinary Field Transit Instrument, were purchased. The gratuitous use of a valuable Sextant, was tendered to and, of course, accepted by me, by P. W. Shephard, Esq., of San Francisco, to whom I am under many obligations.

The above instruments, together with the Theodolite, belonging to your office, and an ordinary Surveyor's Compass, belonging to myself, were all that were deemed necessary to execute the work with sufficient accuracy to accomplish the object for which the survey was ordered.

At first, it was thought that the observations for latitude and longitude would be made with an Astronomical Transit, but, upon reflection, the conclusion was, that the appropriation for the survey was insufficient to allow the purchase of such an

instrument, and the expenditure of so great an amount of time as would necessarily be consumed in setting up, adjusting and transporting it.

Being thus supplied with instruments, on the 22nd of the same month, I left San Francisco, accompanied by Messrs. A. W. Thompson and G. H. Van Cleft, Civil Engineers, the two assistants, whom you had employed, and arrived in Crescent City on the 26th.

The 27th, 28th and 29th were spent in adjusting instruments, employing subordinates and collecting and arranging camp equipage.

Owing to the wild state of the country over which the survey was to be made and the known hostility of the Indian tribes along the line, I was obliged to make the party nearly twice as large as otherwise there would have been any necessity of; the whole party numbering twelve, the names of whom I will append to this Report.

In order to have some check upon our observations, in determining the initial point of the Boundary, I thought it expedient to connect the work with the geographical position, established at Crescent City by the astronomical party attached to the United States Coast Survey. Accordingly, on the evening of the 29th of May, I commenced the field operations of this survey, beginning at the monument at Crescent City, erected by the United States Coast Survey, the latitude and longitude of which, had been kindly furnished us by Captain Alden, of the Active.

On the first of June, this survey was terminated, and I immediately commenced my observations for latitude and magnetic variation. This work occupied a principal portion of the time to the 6th. Several sets of observations were made, both with the natural and artificial horizons, the extreme results differing 19 seconds of a degree, the mean of which I used as the data from which to establish the initial point of the boundary.

The mean of four sets of observations for magnetic variations, by azimuth and amplitude, was assumed as the true data upon which to commence the survey.

The results of these observations, together with those made at the different positions along the line, I will append in a tabular form.

Having thus arrived at a satisfactory conclusion, with regard to the initial point of the boundary, on the 6th of June, I plainly and permanently established the first position of the survey, and started into the interior at right angles to the meridian of the place of beginning. This line I have produced to the terminus of the survey and, therefore, the boundary, as marked upon the ground, is not the 42nd parallel, but an arc of a great circle, at right angles to the meridian of the first position, and, consequently, diverging from the parallel and approaching the equator.

The departure from the parallel, at each position of the survey, I have calculated, and will attach, among other appendices.

Owing to the rugged and broken character of the country over which this line passes, to have undertaken to trace these offsets upon the ground, and, thereby, have established, absolutely, the 42nd parallel, would have cost more time and labor than the small amount of money appropriated for this survey would allow, and would have defeated entirely the evident object of the act, by which the work was ordered.

The first thirty miles of the line was very laborious, and occupied all the time from the 6th to the 19th of the month, making an average of nearly two and one-third miles per day. On this portion of the line eight positions have been established, being on the

summit of all the principal ridges and peaks over which the line passes, and which are permanently and plainly marked, so that they can be easily found and readily recognized.

This portion of the country is broken into deep and rugged canons by the sources of Winchuck river, which empties into the sea a little south of the Boundary, and the North Fork and its sources, of Smith's river.

There is no uniformity, nor regularity to any of the mountain ranges within this limit. It seems as if nature had accidentally dropped these rocks and mountains here, without form and without design.

A great portion of this country and, more particularly, that contained within the sources of the Winchuck river, was once covered with a very heavy growth of white cedar timber, which has been swept down by fire and tornado, and now lies in heaps upon the ground, which, together with the broken contour of its surface and the half burnt manzanita and live oak brush stubble, renders it almost impassable and entirely uninhabitable.

The laborious part of this survey occupied so much more time than was anticipated, that my time for astronomical observations was somewhat limited along the route.

The scarcity of provisions for the party and grass for our pack animals urged us forward, towards the settlements, with all possible dispatch.

The 8th position is on or near the summit of the divide, between the waters of the Illinois and Smith's rivers, along which the trail from Crescent City to Sailor Diggings passes. Having supplied ourselves with an ample store of provisions, we remained here during the 20th, and made observations for latitude and longitude, in order to test the instrumental work of the line up to this point. Finding a difference of only a sixteenth of a mile, I concluded that the work was right, and, on the morning of the 21st, commenced pushing the line on towards the summit of the Siskiyou.

The distance from station 8 to the terminus of the survey, is nearly twenty miles; the line making over a broken and abrupt surface diagonally along the north-western slope of the Siskiyou and crossing all the small sources of the Illinois river, which is a tributary of the Rouge river.

On the 26th we reached the summit of the Siskiyou. Here, having passed the Sailor Diggings and Althouse country, which has been so long in dispute, and determined it to be within the territory of Oregon, as well as having exhausted the appropriation for this work, I concluded to close the survey.

The line, if produced, would run diagonally along the southern and eastern slope of the Siskiyou, and would cross the Klamath river within about thirty miles from this point.

Full and copious notes have been kept along the line, of the longitude of the different streams and mountain ranges, their height above the level of the sea, and the changes in the magnetic variation.

I have taken accurate cross bearings, at different positions, on all the principal mountain peaks within the distance of twenty miles, north and south of the line.

A complete sketch of the topography of the country has been made by Mr. Thompson, containing material enough for an accurate and interesting map of the entire country embraced within these limits.

Having thus concluded to make this the terminus of the survey, I made, with great care, observations for latitude and longitude, and, on the 27th of the month, established the 11th and last position on the line, being on the summit of the Siskiyou, at the extreme head of the Althouse creek, on the north, and Indian creek, on the south, and commenced returning to Crescent City.

Eleven positions, in all, have been established upon the line; for a more accurate description of which, I refer you to my field book, which I send you as material for your office, which contains all the notes of the survey, a manuscript of my calculations and a journal of the daily proceedings of the party.

On the 30th of the month, we arrived at Crescent City, having remained a portion of one day at Waldo Springs, for the purpose of observations for latitude and longitude, and, on the morning of the 1st of July, the subordinates were all discharged.

On the 4th of July, I arrived in San Francisco, together with Messrs. Thompson and Van Cleft, and, on the morning of the 6th, we reported ourselves at your office, in this city.

Since that, a considerable portion of my time has been occupied in working up and transcribing notes and making out the appended summary.

This, together with my field notes, I beg leave, most respectfully, to submit.

I am, Sir,
Your most ob't serv't,

THADDEUS P. ROBINSON,
Deputy Surveyor.

S. H. MARLETTE, Esq.,
State Surveyor General,
Sacramento City, Cal.

P. S. I omitted to state, in my report, that two of the party, Messrs. L. G. Chapman and James Van Dyke, kindly volunteered their services, as assistants in this survey, for which I take this means of expressing my most hearty thanks.

T. P. R.

APPENDIX TO THE REPORT OF THE NORTHERN BOUNDARY SURVEY.

NAMES OF THE SURVEYING PARTY.

A. W. Thompson, C. E., Assistant.
 G. H. Van Cleft, C. E., do.
 James Van Dyke, Volunteer.
 L. G. Chapman, do.
 W. T. Wood, Subordinate.
 A. G. McCandless, do.
 Joseph Vail, do.
 J. W. Ketchum, do.
 Robert McElroy, do.
 Coleman H. Collier, do.
 Thomas McClain, do.

Table showing positions established, and offsets from the line run, to the true boundary or parallel of 42° N.: Calculated by A. W. THOMPSON, C. E.

NOTE. The line run is too far south by the amounts set opposite the "Positions."

Positions.	Longitude West from Greenwich.			Longitude East from Initial Point.			Offsets in Feet.	Height above Sea in Feet.
	Deg.	Min.	Sec.	Deg.	Min.	Sec.		
1	124	12	0	0	0	0		75
2	124	8	30	0	3	30	5.39	1780
3	124	0	0	0	12	0	63.37	1620
4	123	59	0	0	13	0	74.38	2112
5	123	48	58 5	0	23	1 5	233.49	2730
6	123	41	58	0	30	2	396.98	1860
7	123	38	56	0	33	4	481.22	2730
8	123	36	30	0	35	30	554.65	2943
9	123	13	37	0	58	23	1500.17	1803
10	123	11	7 8	1	0	52 2	1630.45	4497
11	123	10	7	1	1	53	1684.52	3789

NOTE. The above "offsets" are only approximate, but are sufficiently accurate for present purposes.

S. H. M.

MISCELLANEOUS NOTES.

			FEET.
Height above the level of the sea of		Chapman's Peak.....	5,635.8
Do.	do.	Carn's Ranch.....	3,100.8
Do.	do.	Cold Springs.....	3,051.8
Do.	do.	Forks of Smith's River.....	611.4
Do.	do.	Bar at foot of Hardscrabble.....	585.4
Do.	do.	Top of Hardscrabble.....	2,019.6
Do.	do.	Myrtle Creek House.....	1,273.8
Do.	do.	Smith's River Ferry.....	281.4
Do.	do.	Waldo Springs.....	1,384.2

Table showing the results of observations made at some of the Camps along the line.

NAMES OF PLACES.	Latitudes.			Longitudes.			Mag. Variation.		
	d.	m.	s.	d.	m.	s.	d.	m.	
Mouth of Winchuck River,							16	44	E.
June 3 rd ,	41	59	47				16	10	E.
June 4 th ,	41	59	28				16	23	E.
June 16 th ,							16	31	E.
North Fork of Smith's River,									
June 16 th ,				124	0	55.8			
Laurel Camp,									
June 18 th ,				123	58	28.5			
Shelby House,									
June 20 th ,	41	58	50	123	37	36			
Summit of Siskiyou,	41	59	17	123	11	22.8	12	40	W.
Waldo Springs,	42	6	31	123	18	39.75			

EXPENDITURE ON NORTHERN BOUNDARY SURVEY.

T.P. Robinson's services 2 ½ months, at \$500.....	\$1,250 00	
Necessary expenses.....	<u>282 33</u>	
		\$1,532 33
Geo. H. Van Cleft's services 1 ½ months, as agreed....	\$416 67	
Necessary expenses.....	<u>202 78</u>	
		619 45
A. W. Thompson's services 1 ½ months, as agreed.....	\$428 55	
Necessary expenses.....	<u>278 93</u>	
		704 48
W. T. Wood's services 35 days.....		178 57
Joseph Vail's services 31 days.....		148 57
J. W. Ketchum's services 31 days.....		148 57
A. J. McCandless' services 31 days.....		148 57
Robert McElroy's services 31 days.....		148 57
Coleman H. Collier's services 31 days.....		148 57
Thomas McClain's services 31 days.....		148 57
James Van Dyke's services 31 days.....		Volunteered
L. G. Chapman's services 31 days.....		services
All other expenses.....		<u>945 70</u>
Total.....		\$4,874 95
Deduct appropriation.....		<u>3,500 00</u>
Balance and amount due Mr. T. P. Robinson.....		\$1,374 95

[B.]

CIRCULAR TO COUNTY SURVEYORS.

SURVEYOR GENERAL'S OFFICE,
SACRAMENTO, June 1, 1854.

Sir:

Allow me, respectfully, to call your attention to the following extracts from the laws defining the duties of your office, in connection with that of the Surveyor General:

1st. From "An Act concerning the office of the Surveyor General, passed April 17, 1850."

"Sec. 9. He shall deliver to the Governor annually, on or before the fifteenth of December, his Report, which shall contain:

"1st. An accurate statement of the progress he may have made in the execution of the Surveys enjoined on him by law, and in preparation of the Map of the State.

"2nd. Plans and suggestions for the improvement of the internal navigation of the State, and for the construction and improvement of roads, turnpikes, railroads, canals and aqueducts; also, plans and suggestions for the planting, preservation and increase of forests of timber trees, for the draining of marshes, prevention of overflows, and the irrigation of arable lands, by means of reservoirs, canals, artesian wells, or otherwise.

"3rd. An estimate of the aggregate quantity of land belonging to the State, and the best information he may be able to obtain as to the characteristics of the same.

"4th. An estimate of the aggregate quantity of all lands used for, or adapted to tillage and grazing within this State, and each county of the State, together with a description of the locations in which the same may be situated.

"5th. An estimate of the aggregate number of horses, cattle, sheep, and swine within the State, and each county of the State.

"6th. An estimate of the aggregate quantity of wheat, rye, maize, potatoes, grapes, and other agricultural productions of the preceding year, together with his views as to the presence, cause and remedy of any diseases or other mischief, preventing a full proportionate return and increase of the same.

"7th. An estimate of all mineral lands within the State, and each county of the State, and the quantity and value of each mineral produced during the preceding year, together with a description of the localities in which such minerals may be found.

"8th. All facts which may be within his personal knowledge, or which he may learn from reliable sources, and which may, in his opinion, be calculated to promote the full development of the resources of the State.

Sec. 10. He shall address a circular letter to the County Surveyors and County Assessors, instructing them, and it is hereby made a part of their official duties, to use their utmost diligence in collecting information, relative to each and every matter mentioned in the ninth section of this Act, and to transmit to him quarterly, at the seat of Government, a report in writing, setting forth the result of their inquiries.

Sec. 11. He shall with his annual report, transmit to the Governor, all reports which he may have received from his deputies, as mentioned in the tenth section of this Act.

“2nd. From “an Act prescribing the duties and fixing the compensation of County Surveyors, passed April 9th, 1850.”

Sec. 13. Each County Surveyor, immediately after making any survey, except surveys of city or town lots, shall make out a copy of the field notes and plats, and transmit the same to the Surveyor General, indicating plainly upon the plats, at what point of any line, any river, or stream, or any county line is touched or crossed.

When called upon to do so, he shall communicate to the Surveyor General, such information concerning surveys made by him, and other matters connected with the duties of his office, as may be required.

“3rd. From “an Act to provide for a Map of the State of California.”

Sec 3. County Surveyors are hereby required to connect all surveys made by them in their respective counties, with, and to some known points, to be determined astronomically, or by connection with the United States Surveys, whenever practicable, under the direction of the Surveyor General, and report the same to the Surveyor General, in accordance with the provisions of the “Act prescribing the duties of County Surveyors, passed April 9th, 1850.”

“4th. From “an Act to provide for the disposal of the five hundred thousand acres of land granted to this State by Act of Congress, passed May 3, 1852.”

Sec. 12. The County Surveyor of the respective Counties of this State, at the end of every three months from the taking effect of this Act, shall make out, and forward to the office of the Surveyor General of the State, without fee for the same, a duplicate copy of each plat, or survey and certificate of the location of any land warrant made under provisions of this Act, in their respective counties, and for a failure to do so, shall be liable to a fine of not less than five hundred or more than five thousand dollars, recoverable before any Court of competent jurisdiction, on the complaint of any person or persons in interest.”

I would here call your attention to a correspondence between the Commissioner of the General Land Office, and the Register of the Land Office at Benicia, relative to the selection of these 500,000 acres of land.

This correspondence was published in many papers of this State, in December and January last, and forms “appendix D,” of the last Report of the late Surveyor General.

I would call your attention to the meaning of the phrase “subject to overflow,” as explained by the Commissioner, which you will find in this circular under the head of “Swamp and overflowed Lands.”

Lands “subject to overflow,” belong to the State, and are therefore not subject to the location of School Land Warrants.

Swamps and overflowed Lands. According to Act of Congress, it is the duty of the Secretary of the Interior, as soon as practicable, “to make out accurate lists and plats of the lands described as swamp and overflowed, and to transmit to the same to the Governors of the several States interested, and at the request of the Governor, cause a patent to be issued therefore, and on the patent so issued, the fee simple of said land shall vest in the Sates, subject to the disposal of the Legislature thereof.”

And “all legal subdivisions, the greater part of which is wet and unfit for cultivation, shall be included in said lists and plats, but when a greater part of subdivision is not of that character, the whole of it shall be excluded.”

The Commissioner of the General Land Office, says that the United States Surveyor General “is authorized to receive such reliable evidence of the character of any of these lands may be presented by the authorities of the State, and as many of these lands were surveyed at dry seasons, and hence are not represented by the descriptive notes or plats as being of that character, I have supposed it a matter of sufficient importance to induce you to call upon the County Surveyors, or other respectable persons of your State, for statements under oath, in relation to the swamp and overflowed lands in their respective counties. Such testimony will be regarded as establishing the facts in the case, etc.”

He also says that “all lands which from being swampy, or *subject to overflow*,” are unfit for cultivation, and “all lands, which through the dry part of the year, are *subject to inundation at the planting, growing or harvesting seasons*, so as to destroy the crop, and therefore are unfit for cultivation, taking an average of the seasons for a reasonable number of years as the rule of determination,’ are to be considered as granted to the State.

I cannot better express my views of the importance to California, of an immediate and proper attention to this subject, than by quoting from the Special Message of Governor BIGLER, of April 17, 1854, upon this subject. He says:

“This is certainly a very liberal construction of this Act, and proper legislation to procure testimony on the subject, will *secure to the State of California millions of acres of the most productive land within the limits of the State.*”

He concludes by saying: “*The subject is commended to your early consideration, as one of vast importance to the interests and prosperity of the people and State of California.*”

THE OFFICIAL MAP OF CALIFORNIA.

I would respectfully request you to compare the “Official Map of the State of California,” a copy of which you will find at the Clerk’s office of your County, with a portion of the State with which you are the most familiar, particularly your own County, and furnish me with the results of your comparison.

Should you find it very inaccurate, an estimate of the expense of making a map of your County, of tolerable accuracy, is desired.

COUNTY BOUNDARIES.

An estimate of the probable manner of miles of boundary, between your own and adjoining counties, that will require to be run previous to the 1st of January, 1856, is desired – also any suggestions for *improvement* upon the present by substituting natural for artificial, or more direct, for those that are less so, or any other changes with a view to a *better and permanent subdivision of the State.*

I invite your attention particularly to the “2nd sub-section of “Sec. 9” of the “Act concerning the office of the Surveyor General.”

CONCERNING THE FIVE HUNDRED THOUSAND ACRES OF LAND GRANTED TO THIS STATE – ALSO THOSE GRANTED FOR EDUCATIONAL PURPOSES.

A somewhat particular description of unoccupied public lands, not “subject to overflow,” nor “swamp” lands, lying within your county, stating what portion is “townshipped,” and what “sectioned,” and what unsurveyed by the U. S. Surveyors, also what portions are timbered, together with the estimated value of each portion, and, if possible, a map which will give some notion of the localities of these lands, are very much desired to accompany my Annual Report.

As I have reason to suspect that many School Land Warrant returns have never been received at this office, you will confer a favor by sending as soon as your convenience will allow, a list of the locations in your county, with all the items necessary for filling out the records, and in cases where the Warrants cover lands that have been surveyed by the U. S. Surveyor, you will be so kind as to state what subdivisions are covered by the same.

SWAMP AND OVERFLOWED LANDS.

You are desired also to furnish an estimate of the “Swamp and Overflowed Lands” (if there are any) in your county, bearing in mind the full import of the phrase, as explained by the Commissioner of the General Land Office. State, if you can, what portions can be reclaimed at moderate expense, and what, if any, are covered by Mexican Grants.

State what portions are surveyed by the United States Surveyors, and your opinion of the probability that they will mark, or have marked, all as “swamp and overflowed,” or as “subject to overflow,” to which California is entitled, and if not, state the number of acres she might lose by inattention to the subject.

Can the necessary information be obtained from “the County Surveyor or other respectable persons” in your county, at a moderate expense, to lay before the U. S. Surveyor General?

I would also request a map, a rough one, if not other can be had, of these lands, also any suggestions which in your opinion will be of use in forming a general system for their reclamation. I will be obliged to you for a list of bridge companies in your county, immediately.

I would urge upon you a careful examination of this Circular, and as strict a compliance with its requirements as you may find possible.

Your last report for this year should reach me by the middle of November next, that I may avail myself of its contents in making out mine, which must be presented by the middle of December.

Please acknowledge the receipt of this immediately, and oblige,

Very respectfully,
Your obedient servant,

S. H. MARLETTE,
Surveyor General.

To -----, Esq., County Surveyor.
----- County.

OFFICE OF COUNTY SURVEYOR,
CLINTON, Alameda County.

Hon S. H. MARLETTE,
Surveyor General

Sir:

In obedience to law, and in compliance with your Circular, I have the honor to submit the following report:

I have no data that would facilitate the making of an accurate map of the State. I have applied to the Court of Sessions for the necessary authority and means to run the county boundaries, and make such surveys as would enable me to make a map of the county, but it failed to grant what I asked for.

There is no internal navigation in the county, except upon arms of the bay of San Francisco. The pass through the coast range of mountains, between the bay of San Francisco and the San Joaquin valley, that is found along the waters of the San Lorenzo creek, is admirably adapted to the construction of a railroad, and is probably the only practicable pass, for that purpose, to be found in the mountains that separate these valleys. There is now in the process of construction a shell and turnpike road, leading from the town of Alameda, through the San Lorenzo pass, to Stockton. There is a short plank road leading to the Embarcadero of San Lorenzo. It is the property of the Eden Plank Road Company. There is a toll bridge across an arm of the Bay of San Antonio, between the towns of Clinton and Oakland. This bridge was partly built by Contra Costa County, before the organization of Alameda. The Court of Sessions of Alameda granted the right to H. W. Carpentier, to complete the same and charge toll until such time as the county should see fit to repay him the cost of its construction, with interest at 3 per cent. per month. The county has not yet redeemed it.

There are about 800 square miles of land in the county, the greater portion of which is mountainous, and therefore unfit for cultivation, though much of it is well adapted to grazing.

The bay of San Francisco forms the western boundary of the county, and between it and the mountains, running parallel with, and on an average four miles distant, there is a very fertile and level valley, well watered with mountain streams and springs. This valley contains about 100,000 acres of as fine land as there is in the State of California, and nearly all of it is under cultivation. Other arable land is found in valleys among the mountains, and a small portion of the San Joaquin valley. On the east side of the first range of mountains, there is a large valley, known in some parts as Livermore, in others as the Amador, and in others again as San Ramon valley, which

contains within the county about 50,000 acres of well watered and fair agricultural land, not much under tillage. Other valleys of less note, are also found among the mountains.

There are not known mineral lands in the county. There is no overflowed land in the county, except from the tide water of the bay; of this there is about 20,000 acres that has saltwater vegetation growing upon it, and is only overflowed at extremely high tides.

I have examined the official map of the State, and so far as my knowledge extends, there is not material error in it.

Between this county and Santa Clara, and San Joaquin, there are about one hundred miles of boundary that should be established. The points in these lines are mostly natural fixed monuments; but the connecting lines not having been run, confusion and difficulty often arise as to the location of persons and property, in relation to the several counties.

I have no reason to believe there is a small portion of land in the San Joaquin valley, unclaimed by grantees of former Governments, but all the other arable land in the county is claimed, with the adjacent hill and mountain land. The greater portion of the mountain land is almost valueless. A part however is well adapted to grazing. The county, generally, is very sparsely timbered. For reasons heretofore assigned, I cannot forward a map of these lands.

The whole county has been townshipped by the U. S. Surveyors, but none of it sectionized. The Mount Diablo meridian passes through Amador valley, enters the Bay valley at the Mission of San Jose, and strikes the said land at the southern extremity of the county.

Respectfully,
Your obedient servant,

H. A. HIGLEY,
County Surveyor.

CLINTON, Alameda County, November 17th, 1854.

Hon S. H. MARLETTE,
Surveyor General:

Sir:

I have the honor to transmit herewith my report, together with duplicate copies of location of land warrants 593 and 619 for 160 acres each, and 164 and 71 for 320 acres each. I came into office at the organization of this county. During my term there has been but one other location of warrants in this county, which was duly forwarded to you. I believe there were two locations in that portion of the county formerly constituting a portion of Santa Clara. These have been floated, as also have been the warrants Nos. 666 and 671, located by me, Sept. 27th, 1853.

I mention the fact in my report, that the boundaries of this county have never been established on the ground; I think this should be done immediately. The Court of Sessions thinks it has not the power to order such a survey. If the authority rests with you, will you deputize me to execute the work? I have been collecting data, which will enable me to make a very accurate map of the county, as soon as the boundaries are established – a copy of which as soon as completed I will forward to your office. I am sorry that I am unable to make a fuller report. The eastern portion of the county is thinly inhabited. I have never been called upon to make any surveys there, and consequently could not give you the desired information, except at a great sacrifice of time and money to myself.

Very respectfully,
Your obedient servant,

H. A. HIGLEY.

MOQUELUMNE HILL, Calaveras County, December 9, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Dear Sir:

Owing to the destruction by fire of the records belonging to my office, I am unable to present you with but a meager report. Calaveras, though a mining county, is entitled to some consideration as an agricultural and grazing section. Although its geographical limits embrace a large extent of territory, scarcely one-half is as yet occupied. In the inhabited portion about 25,000 acres of land have been legally surveyed, and about half that quantity taken up, without the formality of a survey – making an aggregate, at a rough estimate, without accurate data, of about 37,000 acres of land used for agricultural and grazing purposes. Of the ranches – so called, in the mountains – but comparatively little is cultivated, the hills being used for grazing stock, though experiments have proved that very fair crops of barley can be raised on the hills, if put in at the proper season. With irrigation, there is scarcely an acre of land in the county on which any kind of grain or vegetables could not be raised, and that in profusion.

Within the past two years a new and almost unknown section of the county has been brought into notice. I refer to the region in the neighborhood of the “Big Tree.” This section differs in almost every respect from the rest of the county. As its altitude is considerably greater, its climate is somewhat colder. Snow falls in considerable quantities, and I believe that showers are of frequent occurrence during the summer months, a few miles from the mining region. No gold has been found in the section spoken of; the hills lose their abrupt character, and become easy of ascent. The soil is

rich; that on the hill side being as good as that of the valleys. The latter are being fast located upon as choice spots.

The ridge or divide between the Moquelumne and Calaveras rivers, and its continuation between the head waters of the former and the Stanislaus river, is of such a nature that a good wagon road could easily be constructed thereon, leading to a pass which is said to exist over the Sierra Nevada. I have not personally explored far into the mountains, but I have it from reliable sources that there is a pass in the Sierra, in lat. 38 degrees or 38 degrees 30 minutes, considerably lower than any heretofore discovered. A road through it would pass some six or eight miles to the north of the "Big Tree," and a little south of east of Moquelumne Hill. An exploration of the route would be advisable, and should it prove what it is believed it will, a proper use of its advantages would result in great good not only to Calaveras County, but to the whole State.

JNO. C. REID,
County Surveyor,
Calaveras County.

[EXTRACT FROM PRIVATE LETTER FROM THE SAME.]

"That pass through the Sierra is no fiction, if men are to be trusted. A friend of Judge Campbell, tells him that it is 300 feet lower than any other, and that he could drive a wagon from Moquelumne Hill to Carson Valley through it without trouble."

J. C. R.

EL DORADO COUNTY, Cal., June 22, 1854.

Hon S. H. MARLETTE
Surveyor-General:

Dear Sir:

Yours of the 8th inst. has just come to hand, requesting me to acknowledge the same immediately.

My information on most of the points you have called my attention to is too limited to say a word on at present.

As it regards the location of Land Warrants, I have never located any; and the former County Surveyor informed me that he had surveyed but two, and owing to the non-compliance of one of the parties, he had recorded but one.

As regards the State Map, there is nothing right about it, at least so far as my observations have been. Coloma is on the south side of the river, but the map places it on the north. Georgetown bears from Coloma about N. N. E.; the map places it nearly east. Placerville is about S. E. of Coloma; the map places it nearly south. Coon Hollow is between Placerville and Weberville, but the map places Weberville between the two former. I might thus go on and fill a sheet of paper.

Eddy's observations of the latitude of Placerville places it nearly one mile and a half too far north. Wanting a proper almanac, I have not examined the longitude.

The expense of making a map of tolerable accuracy I think would require near \$3000.

BRIDGES.

Wm. Barton, twenty miles above Placerville, on South Fork of American River.
E. and H. George, Chilian Bar, three miles N. N. W. of Placerville, on the South Fork of the American River.

Rann & Peris, Coloma, South Fork of American River.

Ingoldsby & Co., Uniontown, South Fork of American River.

Peris, Raim & Richards, Salmon Falls, South Fork American River.

Shaw, Mormon Island, South Fork American River.

Davis & Co., Volcano Bar, Middle Fork American River.

Moffitt & Co., Mouth Canon Creek, Middle Fork American River.

N. H. Smith, Murderer's Bar, Middle Fork American River.

Condemned Bar, North Fork American River.

COUNTY BOUNDARIES.

The number of miles I am not prepared to give. But the welfare of the County calls for the location of the eastern boundary, as there is a large portion of taxable property in that vicinity, and supposed by some to be in this County.

The above remarks were got up on the spur of the moment, but in my next I will endeavor to be more explicit.

WM. HENDERSON.

County Surveyor,

El Dorado County.

PLACER CITY, El Dorado County, Cal., Nov., 1854.

Hon S. H. MARLETTE,
Surveyor-General:

Sir:

A complete and accurate Report on the County of El Dorado, exhibiting its extent, resources, topography, agricultural, mineral and commercial statistics, would make a good sized volume.

For such a Report I have neither the time nor the data.

I shall limit my Report to a few points more especially pertaining to the Topographical Department.

LENGTH, BREADTH AND AREA.

Until the topography of the County is more accurately laid down than it can be at present, all estimates of its area must be approximate only.

The length of the west end of the County – that is a straight line from the mouth of the Middle Fork of the American River to Dry Creek – is about forty-five miles, and from Mormon Island to the summit of the Sierra Nevada, sixty miles. The width north and south on the summit cannot exceed twenty miles, so that the number of square miles west of the summit may be set down at about 1,950, and on the east of the summit (if Eddy's longitude be right) 300; but if Fremont's longitude be right, 580.

We may therefore conclude that this County does not contain far short of 2,250 square miles.

The gold region in this County extends the whole width of the County, that is, north and south; and from the west side eastward, about fifty miles, embracing about 1,600 square miles. There are, however, a few square miles (perhaps twenty or thirty) in the extreme southwest part of the County, that should not be considered mining lands, for the reason that it cannot be worked without sinking deep shafts, which I think would come in contact with water to such an extent that it would be impossible to work them.

There has been three separate and distinct water deposits throughout the length and breadth of this County. The first, or that lying on the bed rock, is a bed of gravel; in some places it is 150 feet thick. On the top of this rests a bed of pulverized pumice stone. This is also, in some places, 150 deep; and on the top of this, a coarse, dark, volcanic conglomerate. This deposit is frequently found 300 feet thick. In these two latter deposits, many a good fellow has spent large sums of money, hunting for gold, when he might as well have been hunting for it in the top of a pine tree.

In the aforesaid bed of gravel I have found wood in various stages of petrification, but have never been able to find the least trace of animal remains.

There are, throughout this County, many extensive quarries of primitive marble.

There is no coal in this County, and I am inclined to the belief that there is none anywhere between the San Joaquin and Sacramento Rivers and the summit of the Sierra.

COUNTY MAP.

With regard to the map of the County, I have this to say: That so long as the Recorder, Justice of the Peace, etc., make ninety-nine surveys sitting at their tables for the one that the County Surveyor makes on the ground, it is useless to look anywhere in the County for correct data to make a map from.

The shortest way that I have any knowledge of, to obtain a map that would be entitled to any degree of accuracy would be to go on a prominent nob, and, with a solar compass, take the true bearings of other neighboring nobs, villages, houses, etc., and get their distance by triangulation, thus going to different nobs throughout the County in the same way. In this manner, all the noted places throughout the County may be located in their proper places on a map, the roads and water courses approximated to. In this manner, a map of tolerable accuracy might be obtained with but little expense.

In addition to this, there should be a proper geological survey made, in order that those lands that have no gold be set apart from those that have, so that the farmer may go to work without being interrupted. There are many places where farming might be carried on at a good profit to the farmer, where there is no gold, and would be a great advantage to the miners in the vicinity. But these places are about as liable to be torn up by the miner as any other.

There are many beds of poison mineral ores, such as arsenic, copper, cobalt, cinnabar, etc., scattered throughout the County, and many hundreds of men have come to an untimely grave by drinking water impregnated with some of those minerals. The water, therefore, in different districts, should be carefully analyzed, and its character made known.

If the above plan was carried into effect, it would create a new epoch in the mining operations in this County.

Yours, with respect,

WILLIAM HENDERSON,
County Surveyor,
El Dorado County, Cal.

SAN RAFAEL, Marin County, Nov. 14, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir: -

In compliance with your circular of June 1st, I lay before you the following report of this County:

In November, 1853, I sent to your office the numbers of all School Land Warrants that had been located in this County, with the description of their location. Since that time there has not been any located, nor any other surveys made of any account.

The most part of this County has been townshipped, but no part of it has been sectionized. From the limited and disconnected surveys which have been made, I

cannot furnish you with a sketch of this County sufficiently accurate to be of any service to you; nor do I consider it practicable without a survey of the County lines.

I should suppose this County to be about thirty-five miles in length, and about twenty miles in breadth. The number of miles in boundary between this County and Sonoma County, is about twenty-five miles.

There is but little United States' land in this County, as nearly every foot of land is covered by Mexican Grants, or claimed to be, by those holding them. Most of the overflowed land is situated in the north-east part of this County, and nearly all has been surveyed by the United States.

About two-thirds of this County is suitable for cultivating and grazing. The larger portion of it lies near the coast and on the margin of the creeks and bays.

Since November 23rd, 1852, there has been 6,720 acres of land located in School Land Warrants; of this amount 4,800 acres have been located upon land covered with redwood timber, and the remaining 1,920 acres upon land suitable for cultivation.

I would respectfully call your attention to the condition of certain fords on the main road from San Rafael to Sonoma County. These, in the winter season, are impassable. The mail for the County has been detained at these arroyas for several days. All of these places could be made passable by bridging. There are no bridge companies in this County, not any bridges, although bridges are much needed. I call your attention to these seemingly trifling difficulties, as their amendment is an operation too extensive for this County to undertake, and affecting, as it does, the interest of all.

I would estimate the number of

Horses.....	2,000
Cattle.....	9,000
Sheep.....	2,000
Swine.....	2,000

Fruit trees, about 2,000, most of them three years old, although some of them have borne fruit these two years; but this year the fruit has been destroyed by birds and foxes. Of the exact amount of produce for this year but little reliable information can be obtained.

Very respectfully, sir,
Your obedient servant,

ALFRED D. EASKOOT,
County Surveyor of Marin County.

MARIPOSA, December 5, 1854.

Hon S. H. MARLETTE,
Surveyor General:

Sir: -

I have the honor of submitting the following report in conformity to the suggestions of your circular of November 1st, 1854:

First. So far as I am able to state, "The Map of the State," of that portion comprising Mariposa County, is in the main correct. The greatest inaccuracy is in the course of the Merced River from Phillip's Ferry to its mouth. The mouth of the River, according to the United States surveys, is about thirty miles west and nine miles south of Phillip's Ferry.

Second. There is in the Valley of the San Joaquin River a large scope of country of high, dry, arid soil, destitute of timber. Much of this land might be irrigated by canals from the San Joaquin and its tributaries. But it appears to me that the more feasible plan would be by artesian wells. If the State, in its wisdom, would select a high location, cause to be sunk a good artesian well, to test the feasibility of the plan and its cost, these lands would become available, and many actual settlers would follow suit, who are not able or willing to undertake what they have no idea will be the cost, which might perhaps be trifling, or perhaps great.

An artesian well having been sunk, I should suggest that a forest, composed principally of the black locust tree, the cottonwood of the Mississippi, and what is usually known by the name of the "China-Tree," or the "Pride of China" in the Southern States; they each being a very quick growth. These soils would then, without any further effort, improve. They will even now, when the season is favorable, bring a good crop of barley, wheat or oats. Under the skillful hand of the husbandman these lands must improve fast and repay well the labor expended. Stock, from the months of March or April, until the fire runs over these lands – or should they, perchance, escape the fire, until the rains of the succeeding winter set in – prefer to graze upon these arid soils, and thrive, though there does not appear to be a green vegetable upon them after the month of June until the following spring.

Third. As to the swamp or overflowed lands in this County, I know of no certain way of ascertaining, except by actual survey and taking testimony. From the best information I can obtain, I think there must be from seventy-five to one hundred thousand acres of tule lands and other overflowed lands which will come under the same denomination. To ascertain the facts it will be necessary to appoint a Commissioner to retrace the United States Survey lines, and to take testimony.

The greater part of these lands may be reclaimed, according to the best information I can obtain; first, by throwing up sufficient levees with sufficient room between them, and by draining. The make of the soil upon the San Joaquin River is such that the water will rise more or less inside of a levee, through the soil.

Fourth. The past summer has been particularly disastrous to many crops of the Farmers of this County, in consequence of the presence of one of Pharaoh's plagues, grasshoppers, appearing in vast swarms. Of the cause or prevention I can say nothing.

LAND WARRANTS.

Fifth. I have taken the following memoranda from the Record Book of the County Recorder. I have endeavored to inform the holders of these warrants of the necessity of informing me of the subdivisions they intend to hold under them, which they have neglected to do:

School Warrant No. 38, calling for 320 acres, issued July 30, 1852, located by John Strentzall.

School Warrant, No. unknown, calling for ----- acres, issued Feb. 26, 1853 located by Samuel Scott.

School Warrant No. 198, calling for 320 acres, issued April 14, 1853, located by C. V. Snelling.

School Warrant No. 239, calling for 160 acres, issued July 8, 1853, located by L. D. Vinsonhaler.

School Warrant No. 240, calling for 160 acres, issued July 8, 1853, located by L. D. Vinsonhaler.

School Warrant No. 47, calling for 160 acres, issued July 7, 1853, located by L. D. Vinsonhaler.

School Warrant No. 48, calling for 160 acres, issued July 7, 1853, located by L. D. Vinsonhaler.

School Warrant No. 583, calling for ----- acres, issued Sept. 30, 1853, located by J. H. Baird.

School Warrant No. 584, calling for ----- acres, issued Sept. 30, 1853, located by J. H. Baird.

School Warrant No. 586, calling for ----- acres, issued Sept. 30, 1853, located by J. H. Baird.

School Warrant No. 587, calling for ----- acres, issued Sept. 30, 1853, located by J. H. Baird.

COUNTY LINES.

Sixth. It appears important that the boundary line between this County and Stanislaus County, or the most part of it, and the line between this County and Tulare County, should be run. I would suggest that where the United States have surveyed the lands, the County lines should be made to correspond with the nearest township lines to present nominal boundaries, except where there are natural boundaries.

All of which is respectfully submitted,

O. M. DICKINSON,
County Surveyor of Mariposa County.

NAPA CITY, July 18th, 1854.

Hon S. H. MARLETTE,
Surveyor General:

Sir:

Owing to my absence, on professional business, I have only received your circular on the 10th inst. I now hasten to acknowledge the receipt of it, and, at the same time, to reply, succinctly, to several parts.

To articles 1, 2, 3, 4, 6, 7, and 8, of section 9, of the act relative to the Surveyor general, I will say that I am preparing a general report, which I will send to you on the first day of November, or, at any rate, before the 15th. The farmers of Napa county have formed an Agricultural Society, and will have a Fair about the middle of September, where I will be enabled to ascertain all the facts relative to our agricultural state.

I have not, as yet, sent any reports of private surveys, made by me, as they were so desultory that it would have cost me a whole year's work to connect them together, but, in consequence of the number of county roads that have been ordered and surveyed this year, I will be enabled to send you a pretty correct map of Napa Valley proper. But this county, being composed of several valleys, such as Berryessa Valley, Napa Valley, the Russian River, Pope's Valley, Cayote Valley, and Clear Lake Valley, on the north of Napa Valley and the Chemiles Valley, the Loconome Valley, and the Valley de los Putos, towards the east, and a great many small mountain valleys. The boundaries of the county are very indefinite, as the limits call for ranges of mountains which do not exist, or which are cut up by small and even large valleys, especially the eastern boundary. The northern boundary is placed on the State Map a great deal too far south, or Clear Lake a great deal too north, I am not prepared to say which, but I will, in a few days, start for the Lake, and ascertain the exact position of the southern point of it, by astronomical observation, which I will send to you in my general report. The quantity of miles to be run to fix the boundary line between Napa county and the adjoining counties, would be about one hundred and fifty miles.

We have no tulare lands, or lands subject to inundation, uncovered by Spanish or Mexican grants, except on the margin of Clear Lake; in the mountain valleys there are some tracts subject to overflow in winter, but they are very small.

I have sent, according to law, the copies of the certificates of School Land Warrants, which I have located in Napa Valley. Below is a list of them. If any have been mislaid, please let me know, and I will immediately send duplicates of them:

Survey No. 6. – Warrants, Nos. 118 and 119, for 160 acres each, issued in favor of and located by S. Bynum, on the 15th and 16th of June, 1852.

Survey No. 8. – Warrant, No. 52, for 320 acres, issued in favor of and located by J. B. Cook, on the 13th of August, 1852.

Survey No. 9. – Warrants, Nos. 275 and 276, for 160 acres each, issued in favor of and located by Charles Hopper, 18th Sept. 1852.

Survey No. 10. – Warrant, No. 82, for 320 acres, issued in favor of and located by George C. Yount, 8th of October, 1852.

Survey No. 13. – Warrant, No. 86, for 320 acres, issued in favor of and located by J. S. Stark, on the 3rd and 4th of November, 1852.

Survey No. 20. – Warrant, No. 88, for 320 acres, issued in favor of Jas. Burney and located by S. Bynum, on the 14th of January, 1853.

Survey No. 21. – Warrants, Nos. 451, 452, and 463, for 160 acres each, issued, the two first, in favor of Milton Biggs, and the last, in favor of R. F. C. Kellogg, and located by said Kellogg, 22nd and 23rd Feb. 1853.

Survey No. 22. – Warrants, Nos. 513 and 514, for 160 acres each, issued in favor of and located by Wm. H. Nash, 7th of April, 1853.

Survey No. 23. – Warrants, Nos. 515 and 535, for 160 acres each, issued in favor of and located by Wm. H. Nash, on the 9th of April, 1853.

This being the whole number located by me in all, nine surveys, and containing three thousand and forty acres (3,040 acres).

All the other information, which I will be able to collect, I will cheerfully transmit to you, on the first of November, or sooner, if possible.²

I cannot send you an estimate of the probable cost of making a map of my county, as I do not know myself, exactly, the errors on the map of the State.

I am, sir,

Your obedient servant,

EM. AD. HENNECOURT,

County Surveyor, Napa County.

AUBURN, November 15, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

I have just availed myself of the privilege of examining your circular of the 1st November. I am unprepared to give you the information sought for; which I would gladly do, if I were prepared to do so. The County of Placer is peculiarly situated, as you are aware, I suppose: extending from ten miles above Sacramento city to the summit of the Sierra Nevada, and it would be impossible for me to say to you what portion of it is agricultural and what is mineral. There is but a small portion, however, which would be considered agricultural, compared with the whole amount of territory; and, as to the swamp and overflowed lands, I have not the most distant idea. You will observe that our county boundary commences at the northwest corner of Sacramento county, on the

² Not Received. S. H. M.

Sacramento river, running thence up the middle of said river to a point ten miles below the junction of Sacramento and Feather rivers; thence in a northerly direction in a straight line to a point in the middle of Bear creek, opposite Camp Far West; thence up the middle of Bear Creek to its source, etc. I have no idea what the distance is from the source of the Bear river and the source of the Middle Fork of the American River to the State line; neither have I any idea of the distance across from one stream to another. The distance from the point mentioned to Camp Far West is said to be about thirty miles. The line has been run, or pretended to be run, by my predecessor, and a man appointed by the authorities of Sutter county. Their report was received, though they reported no timber on the route, and put up no marks whereby we could determine where it is. The line is also open and unsettled between Placer and Sacramento, from the northwest corner of Sacramento to the junction of the North and South Forks of the American river. I am unprepared to say anything definite relative to the swamp and overflowed lands – there being none; only the portion which lies on the Sacramento from the two points above mentioned; and I have never been called upon to make any surveys in that portion of the county; consequently I have never seen it. The agricultural portions which I have surveyed in this county have generally been in small bodies in the mineral region, with the exception of a strip across the lower end of the county, about the edge of the plains; there I have located for several persons tracts of school land. Those returns were made during the administration of your predecessor, which, I observe he enumerated in his report. I have made none since, or I would have sent them up quarterly, as the law requires. As to the Government surveys, I am entirely unprepared to say to what extent they have progressed. They have run some township lines up as far as this place, as I understand, and I observe that they have run a number of township lines down about the edge of the plains, but not happening to see them, I don't know to what extent they have progressed with it.

It would have afforded me much pleasure indeed, to have given you more satisfactory information in this communication; but indisposition, and other causes, have led to my delinquency on the present occasion. I hope our Assessor will do better, and I will try to do so in the future. I am aware of the propriety, and great necessity, for prompt action and attention to those duties, and wish, under all circumstances, to give them that attention which their importance demands.

Very respectfully,
Your obedient servant,

C. W. FINLEY,
County Surveyor, Placer County.

COUNTY SURVEYOR'S OFFICE,
PLUMAS COUNTY, 30th Sept. 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

I have the honor of submitting the following Report in relation to the requirements contained in your circular, of June last:

There are no navigable streams in this county. There are a number of wagon roads, passing through this county. The Lassen road, Nobles' road, roads passing through the American and Indian Valleys, and the road by Seventy-Six, all of which are traveled by emigrants from the Eastern States. One road, well worked, would be better than they all are. I would, therefore, recommend, that there be a State road laid out and worked, commencing at the Butte Creek Mills, near Neal's ranch, in the Sacramento Valley, passing through Yellow Creek Valley, Butte Valley and Pioote Valley, to the State line. This route I believe to be the shortest and best, with the greatest abundance of grass and no scarcity of water.

The forests of timber, in this county, are inexhaustible. There are no marshes to drain or overflowed lands to reclaim. The farming lands are easily irrigated, by the streams that run from the mountains. There are no lands that I know of that would come under the head of State lands, in this county. The lands, adapted to tillage and grazing, are about one hundred thousand acres, and are situated in the valleys located on the waters of the Feather river. There are about two hundred horses, for or five hundred cattle and two hundred swine. There was about seven hundred bushels of wheat produced last year, and a number of thousand bushels of potatoes, which will be greatly increased this year. This county is almost one entire gold district. I have no means of knowing the quantity produced last year. It is found in the beds of streams, dry ravines, hills and quartz ledges. There is no United States survey of lands in this county, nor any point astronomically determined, to my knowledge. I have compared the official map, and, so far as it regards this county, it is very inaccurate. The expense of making a map of this county, I have no means of ascertaining, unless by the execution of said map. The county line, between this and Sierra, should be run as soon as practicable, as there has been some dispute about the jurisdiction of the two counties. There are no School Land Warrants located in this county, and, to my knowledge, no Mexican grants claimed or bridge companies chartered.

All of which is respectfully submitted.

JOBE T. TAYLOR,
County Surveyor, Plumas County.

SACRAMENTO COUNTY, December 4th, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

In answer to your "Circular to County Surveyors," the following statement is respectfully submitted:

With regard to County boundaries, where natural limits are not selected, there can be no doubt but that the lines of the U. S. Surveys, as being defined upon the ground and known to the citizens, would be better and more permanent boundaries than the arbitrary lines at present adopted.

More than a year has elapsed since the whole of this county was divided into townships, six miles square, by the United States Surveyors, but no portion has, as yet, been sub-divided into sections. A delay, caused by the expressed intention of the U. S. Surveyor General to await a final decision on the Mexican grants, and a delay which produces much disappointment and inconvenience to the settlers throughout the county. Those who are disposed to select a claim, in a desirable vicinity, being unable to ascertain where a pre-emption might be safely located, without danger of dispossession by a prior occupancy; and those already settled, being equally deterred from making valuable and permanent improvements, of which the U. S. section lines might eventually deprive them – a condition of affairs highly prejudicial to the agricultural interests of this county and measures to obviate which, are urged as of the first importance.

For this purpose, your attention to the following suggestions, is solicited:

Could an immediate sub-division of the townships into sections, quarter-sections, etc., be obtained, the chief obstacles to future settlement and improvement would be removed; the settler would then be enabled to locate, build and improve, with a knowledge of the extent of his protection, under the U. S. pre-emption laws, and the U. S. Government would sustain but the trifling loss of such surveys as might be afterwards embraced within the limits of a confirmed grant.

But this would yet be far from affording all that is reasonably required by our agricultural community, already settled on the public domain.

The pre-emption laws of the United States, made applicable to this State, by the act of March 3rd, 1853, were framed with reference to the wants of settlers upon the Public Lands, at the time of their passage, and were found sufficient for the then new States and Territories. By these laws, the pre-emptor is confined to the legal sub-divisions of the survey. His right is made an untransferable personal privilege, and his remedy, the arbitrary decision of the Register of his Land Office, and an appeal, rarely taken, to the proper department.

For a country, where the compass of the surveyor usually preceded the plough of the settler, and the land sale followed in quick succession; where a scattered population erected cheap dwellings and moveable enclosures, and legal sub-divisions could easily be selected, without encroachment upon a neighbor; where conflicting claims were

anticipated by the provisions of the law, and readily adjusted by a Register; for such a country were the present pre-emption laws make adequate, and, to such a country, the State of California exhibits an exact contrast, being, in all respects, precisely the reverse.

Should, therefore, these laws be enforced within this State, according to their present provisions, annoyances, without limit, and actual losses, beyond computation, would be inflicted upon a large portion of our citizens. A few illustrations may suffice.

First. Along the roads, and, in other places, where land is deemed valuable, expensive buildings and permanent ditch fences have been constructed, in such positions, that often, by survey, a legal subdivision will be ascertained to include two or more occupants, and the result be an abandonment or a troublesome controversy, generally both.

Even where there may be no contested claim, the changes of lines and boundaries will entail upon the settler the loss of a portion of his enclosures and other improvements, or place them in an unsuitable position to the remainder of his land.

Again: as the United States Government recognize no transfer of a pre-emption right, the purchaser from a settler, dates his occupation from the time of the purchase, thus becoming subject to all the intermediate rights of the neighborhood; consequently, a valuable portion of the claim, the priority of location, is utterly lost, neither buyer nor seller benefiting thereby.

Further; for the multitude of contests that must, necessarily arise during the final determination of the pre-emptive rights, no competent tribunal is provided, there being simply a Register, from whom – restricted to his formula of instructions, and pressed with other duties of his office – but little can be expected, and a distant department of the Government, which may, at some future time, favor its applicants with a decision.

These, and numberless other examples, could be fairly stated, as the legitimate result of an application of the present pre-emption laws to the settlers upon the public lands within this State; and it is therefore suggested that measures be taken to urge such a modification in their provisions as will enable the settler to purchase, from the U. S. Government, according to his possession and improvements, as will entitle him to transfer his right to a purchaser, and will, when his claim is questioned, furnish him with a speedy and ample adjudication.

Should this be accomplished, the loss to the General Government of a few detached acres of rejected and, comparatively, worthless land, will be more than compensated by the prosperity of her citizens, and, it is confidently asserted, that no act of Congress, relating to the public domain, within this State, short of an absolute donation, would be more beneficial to the interests of our agricultural population, than one of a nature thus recommended.

Although not possessed of information sufficient for a reliable statement, yet, it is believed, that the swamp and overflowed lands, as designated in the circular, will, in this county, exceed one hundred and thirty thousand acres, fifteen thousand of which may, perhaps, be included within Mexican Grants. A large portion of these lands are covered with valuable grass, part with tule, and the remainder with weeds. The overflow being usually caused by the rise of adjacent streams, the construction of proper dykes or levees, with a regular system of drainage, would, at no immoderate expense, reclaim a quantity of land, which, at present, cannot be calculated, but which, from the richness of

the alluvial deposit, may hereafter be classed among the most productive soils within the county.

It is to be regretted that such an examination of this subject has not been authorized, as would have afforded a more exact report.

The separation of these lands from the public domain, seems, at present, solely to depend upon the field notes of the U. S. Deputy Surveyors, who, traversing them during the dry season, can scarcely be qualified to judge of their nature, and the State, in consequence, may sustain serious loss. The Commissioner of the General Land Office, however, is permitted to receive such evidence of the character of these lands, as the State may furnish.

To what extent the State will be a sufferer by a neglect of its interests within this county, cannot now be made the subject of an estimate.

On the lands which, as swamp and overflowed, will eventually be allotted to this State, many settlers are at present located, with the exception of purchasing, when titles can be procured. Such a contingency seems not, as yet, to have been provided for, or even contemplated, and it is suggested that a recommendation be made for the organization of a department, to have in charge the landed interest which this State will, under several acts of Congress, soon possess; a department fully authorized to provide surveys, make sales, confer titles, adjust claims and exercise all such powers as other States have judged expedient to vest in Commissioners for similar purposes.

In conclusion, it is respectfully represented, that the statements and suggestions, herein contained, are submitted for your consideration, as relating to this county, although an identity of interest, throughout the State, may render unavoidable their general application.

Very respectfully,
Your obedient servant,

WM. L. DeWITT,
County Surveyor.

SAN BERNARDINO, December 7, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir: -

Your circular addressed to the County Surveyor, was duly received some ten days ago, and I hasten to answer it. I would have sent the particulars before but was not in possession of the statutes of the State, in consequence of the absence of H. G. Sherwood from the State, whose vacancy I was elected to fill in September last. Since

the receipt of your favor, the Assessor has informed me that he has fulfilled the requirements mentioned in your circular. I shall, hereafter, use every exertion to fulfill the duties of my office.

In relation to a route for the Great Pacific Railroad: the route from the mouth of the Gila River, through the pass of San Gorgonia, to the port of San Pedro, is, in the minds of all practical men, well adopted to that great enterprise, being free from any great obstacle, and a portion of the way well timbered. The Hon. Wm. M. Gwin, who visited our County last week, expressed himself, from what he had seen and could hear, that the route was decidedly practicable.

I remain, respectfully,
Your obedient servant,

ARVIN M. STODDARD,
County Surveyor of San Bernardino County.

COUNTY SURVEYOR'S OFFICE,
San Francisco, Nov. 1, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir: -

In compliance with your instructions, I beg leave to make the following report:

SCHOOL LAND WARRANTS.

From October 1st, 1853, there have been fourteen warrants located in this County, on twenty-four hundred acres of land; copies of the plats of survey I herewith send.

In this connection I would be leave to state that the late Surveyor General left with me a package of returns of School Land Warrant Surveys, made by the late County Surveyor of this County as informal, and which were not recorded in your office. I shall send them to you to dispose of as you may see fit.

SWAMP OR OVERFLOWED LANDS.

It is almost an impossibility to make an estimate with any degree of accuracy of the quantity of these lands in this County. There has been 2,869 acres surveyed for different individuals since October 1st, 1853.

COUNTY BOUNDARIES.

The act subdividing the State into Counties, and establishing the boundaries thereof, describes San Francisco County as “beginning at a point in the Santa Cruz mountains, at the source of San Francisquito Creek, thence due west to the Pacific Ocean, etc.” There is considerable difficulty in locating the source of the aforesaid Creek, as there are three different streams or springs some distance apart on these mountains, all of which are claimed, by different persons, to be the source of the Creek. it creates a great deal of confusion with regard to the lines or boundaries of land in that vicinity, as also in the collection of taxes – Santa Cruz County and San Francisco County both claiming from the same land owners.

An official survey to determine finally the line from the initial point to the ocean is absolutely needed, both with regard to the interests of this County and Santa Cruz.

In relation to the other questions in your circular, about public lands, etc., it is needless to say to you that there are no unoccupied lands in this County.

Having no other information of any importance to communicate, I will here close.

Very respectfully,
Your obedient servant,

J. J. GARDINER,
County Surveyor.

STOCKTON, June 9, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir: -

A circular from you, the receipt of which I take pleasure in acknowledging, came to hand this morning. I have also to acknowledge the receipt of a letter bearing date June 1st, for which please accept my thanks.

In reply to the requests contained in your circular, I have to say that some time will be required to comply in the proper form.

With reference to the bridge companies in this County, I have to say that I do not thing there is a regularly organized company in this County, working under a charter. There are three toll-bridges in this County, all of which are on the Calaveras River.

In the matter of the School Lands already located, I will attend to sending you the plats as soon as I can find time so to do.

We have in our office an official map of the State. The County of San Joaquin is somewhat incorrect. The western boundary line should fall due south from the point of starting on the west channel of the San Joaquin River, and should be about twenty

miles in length, thence following the Coast Range, nearly south-east, about fourteen miles, thence north-east about ----- miles to the mouth of the Stanislaus River. I am of the opinion that the County is too far north. I believe that the north-east corner of our County is but about fourteen miles north of the 38th dg. of north latitude. I am also of the opinion that the distance from the north-west corner of the County to the San Joaquin River is much too long. Some of the roads as laid down are not County roads. I can make you a map of this County, on the scale of two and half miles to the inch, generally quite correct, laying down all of the roads that are truly County roads, and also others that are traveled, if you wish it, for one hundred dollars. I should be obliged to visit several points on the northern boundary of the County, in order to make up such a map as I should wish to send to you.

Mr. Whiting is on a visit to the Atlantic States. I look for his return in about three weeks, when I shall take pleasure in laying your circular before him.

Yours truly and with respect,

GEO. E. DREW,
Deputy County Surveyor of San Joaquin County.

P. S. – I received notice from the County Judge several weeks since, that it would be necessary to run the boundary line between this and Stanislaus County, previous to January 1, 1855; a distance of some twenty-six miles from the mouth of the Stanislaus River. The boundary line at present commences at a point on the San Joaquin one mile west of the mouth of the Stanislaus. The western line of our County is, I believe, about a half a mile west of the second range line east of Mount Diablo. I would suggest the propriety of assuming that the line as the boundary, from the base line south to the summit of the Coast Range, and from the base line north two miles, more or less, to the San Joaquin River.

G. E. D.

COUNTY SURVEYOR'S OFFICE,
SAN JOSE, Nov. 22, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

I send you enclosed, a tabular statement of all the School Land Warrants which have been located in Santa Clara County, prior to the first of September of the present year. But two warrants have been located during the current quarter, viz:

Warrant No. 77, for 160 acres, issued June 3rd, 1852, to George I. Clark; assigned May 20, 1853, to Wm. J. Maclay, and located for him Sept. 23, 1854; and Warrant 602, for 160 acres, issued July 2, 1853, to Lawrence Sturtevant, assigned July 5, 1853, to L. A. Gould, and located for him Sept. 28, 1854. The greater part of the lands in this County, have been surveyed into townships by the United States Surveyors, but no part has been sectionized. A few of the estates claimed under Spanish and Mexican titles have also been surveyed, but sufficient progress has not been made in this department to show the location and extent of any tract of public land. It is evident that we cannot know that any land is the property of the United States, until the adjacent private grants have been surveyed, and it is ascertained that none of these cover it. When these surveys are completed and returned to the office of the U. S. Surveyor General of California, the maps in his office will exhibit the boundaries of the public lands as well as those of the several ranchos. The information which reaches the County Surveyor, in regard to this matter, can only be obtained indirectly, and it is respectfully suggested that the most, and indeed only satisfactory mode by which correct intelligence can be obtained, will be by an application to the U. S. Surveyor General for California. I have no doubt, that as the surveys progress, valuable tracts of land lying within the limits of this County, which have been supposed to be covered by private grants, and are unoccupied, will prove to be public land, but unless some measures are adopted to secure these to the State for School lands, as soon as possible, after the return of the surveys, they will be occupied by settlers claiming as pre-emptors. The only lands in Santa Clara County, which come under the description of "swamp and overflowed lands" are the "esteros" lying around the southern part of San Francisco Bay. They are salt marshes, covered by ordinary high tides, and intersected by numerous sloughs and estuaries. They are unfit for grazing or culture, irredeemable except at a great cost, and in my opinion entirely worthless. No survey has been made of them, but I estimate their area at about twenty square miles.

No change in the present boundaries of this county, is recommended. The line between Santa Clara and San Francisco Counties, was surveyed by your predecessor in office, (the late Wm. M. Eddy, Esq.) near the close of his term. The boundary between this and Alameda County should be surveyed early next year, a considerable settlement having been made so near the division line that it is impossible, without a survey, to determine in which county it lies.

The only important error in the official map of the State of California, as regards this county, is in the position of Salespreedes Creek which rises to the westward of the summit of the Santa Cruz Mountains, and no part of which lies within the limits of Santa Clara County.

The topography of the County is fully described in the report from this office to your predecessor, dated Dec. 15, 1852, and published in page 34 of his annual report for that year, to which reference is respectfully made. The survey of the townships east of the principal meridian, have been but recently completed, and the maps have not yet been returned to the office of the U. S. Surveyor General. When copies of the maps of the townships east and west of the principal meridian can be procured, I can, by adding to them such local information as the records of this office furnish, make a pretty accurate map of the County, and a very close estimate of the amount of valley and of mountainous land.

The area of Santa Clara County as now constituted, may be estimated at 1000 square miles, of which about 450 square miles or 298,000 acres are valley land. I estimate that during the present year, about one-tenth of this was under cultivation, and produced as follows, viz:

20,000 acres in	Wheat, at 30 bushels per acre,	750,000 Bushels,
5,000 “	Barley, at 50 “ “	250,000 “
2,000 “	Oats, at 30 “ “	60,000 “
2,000 “	Corn, Potatoes, Cabbages, Onions, etc.	

The wheat crop was fully 25 per cent below the average yield of the valley, almost every field being more or less injured by smut.

There are in the County, five flour mills, having 14 run of stones, in operation, and three more designed for 15 run, are in process of erection, two of which are nearly completed.

The Santa Cruz mountains furnish an abundant growth of redwood, and a large number of mills are in operation, preparing lumber for his County and for shipment to San Francisco, but owing to their remote position, I am unable to furnish accurate statistics either to their number or annual product.

The New Alameden quicksilver mines, situated on the eastern slope of the Santa Cruz mountains, 12 miles from San Jose, is the riches in the world, and the annual product exceeds that of any other mine. I applied some time since, in the proper quarter, for authentic statistics, respecting their operations during the past year, but the desired information has not yet been received.

Copious supplies of pure water have been obtained in different portions of the valley, by sinking artesian wells, (6 ½ inches in diameter,) is about two dollars per foot. From 15 to 20 of these wells have been sunk within the last six months, and the result of these experiments renders it probable, that in every part of our valley, unfailing streams can be obtained at a cost of from \$140 to \$400. We can hardly over estimate the benefits which will accrue to the County from these discoveries. One, by no means the least, is that farmers will be able to retain a portion of their land for grazing, and on other portions, to raise wheat, corn, oats, and garden products. By the introduction of a greater variety of crops, it is to be hoped they will avoid that over production of particular articles which has heretofore resulted so disastrously to the farming interest.

Messrs. Head & Beale are making preparations to erect a toll bridge over the Pajaro River, at Malo Paso, under an act of the Legislature, passed at its last session. No other bridge company has been organized in this County.

Yours, very respectfully,

WM. I. LEWIS,
County Surveyor, Santa Clara County.

SHASTA, June 30, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

Your circular came to hand this morning. In reply, I have to state, that I do not at present hold the office of the County Surveyor of this County; having resigned about six months ago. The vacancy occasioned thereby has not yet been filled by an appointment. It will give me pleasure, however, in the absence of the proper official, to give you the information your circular calls for.

1st. The County of Shasta, as represented upon the official map, was made out, with my assistance, from the best information which could be had; and I am not aware of any surveys having been made since that time which could add to its accuracy.

2nd. I am not able to give you a more correct estimate of the number of miles of boundary between this and the adjoining counties, than can be obtained by the scale of the State map.

As yet, there have been no surveys made by the Government, in this county, upon public lands. There are no lands subject to overflow, nor any swamp lands on any extent within the limits of this county. A more particular description of the public lands here, I am unable to give you at present.

There are three toll-bridges in this county; all of them upon Clear Creek, viz: Laundrum & Briggs', J. J. Bell's, and Kearnes & Deal's.

Very respectfully,
Your obedient servant,

E. C. GILLETTE.

P. S. I forgot to state, that but two School Land Warrants have been located in this county – Nos. 382 and 383, for 160 acres each – for S. B. Sheldon. Another Warrant, for 320 acres, was located by M. S. Cavert, in this county, upon another man's claim; but was either floated or abandoned by Cavert.

COUNTY SURVEYOR'S OFFICE,
DOWNIEVILLE, Sierra Co., July 2, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

In compliance with the instructions contained in your circular of the 1st ult., I hereby remit to you such information as I have been able to collect, and hope I shall be able, previous to the 15th of November, to remit full statistics of my county.

I find, by an examination of the State map, very material discrepancies in both the southern and eastern boundaries of my county, in relation to the location of streams, and their relative position hereto.

About one hundred miles of county boundary should be run, previous to January, 1856.

I can, with such data as I have already in my possession, make a very accurate map of my county, (by taking a few more topographical observations,) for about six hundred dollars; and if I find that it will not cost as much as I anticipate, I will reduce the price accordingly.

With regard to bridge companies: there are two toll-bridges in this county; one crossing the North Yuba at this place, owned by D. G. Webber; another, crossing the same at Goodyear's Bar, owned by James Golding.

All of which is respectfully submitted.

Yours, etc.,

MYRON H. STONE,
County Surveyor.

P. S. If you should require the map previous to the 1st January next, please inform me soon, for the purpose of taking my observations previous to the rainy season.

COUNTY SURVEYOR'S OFFICE,
DOWNIEVILLE, Sierra County, Cal., Nov. 20th, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

In compliance with an Act passed April 17th, 1850, concerning the office of Surveyor-General, I beg leave to make the following report:

1st. There are no navigable streams in this county.

2nd. During the present year there have been many improvements made in wagon roads, and there is a project now on the tapis to construct one from this place, to Indian Valley, to connect with the Marysville road.

3rd. There are about 2,000 acres of overflowed or swamp lands in this county, all in Sierra Valley.

4th. There are about 1,500 acres of land under cultivation in this county, the principal part of which is in Sierra Valley, situated on the head waters of the Middle Feather River. There are about 30,000 acres within this county adapted to tillage and grazing.

5th. Number of horses and mules, about 500; cattle, 400; swine, 1,000; sheep, I know of none except a very few in the hands of butchers.

6th. Wheat, barley and potatoes are the principal productions of the county in its agricultural branch.

7th. The entire county I consider as mineral lands. The only mineral that abounds in sufficient quantity to repay the miner, is gold. Other metals are occasionally found in small quantities, but principally in the form of oxides or sulphurets. Springs impregnated with sulphur are found in the north-eastern part of Sierra Valley.

The estimated value of the gold extracted from the mines and placers of this county during the present year is between eight and nine millions of dollars.

I have the honor to be
Your most obedient servant,

MYRON H. STONE,
County Surveyor, Sierra County.

By W. G. STILL, Deputy.

COUNTY SURVEYOR'S OFFICE,
DOWNIEVILLE, Sierra County, Cal., November 21st, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

I received yours of the 13th inst., accompanied by your circular, and although I remitted to you yesterday my report, I will herein give such further information as lies in my power.

1st. The boundaries of this county contain about 174 miles in circumference, of which there has been surveyed only 19 23-100 miles, being the line between this and Yuba county, of which I forwarded a copy to your office³; how much of the balance

³ Not received. S. H. M.

requires to be run out before 1856, I know not, for I have seen no order upon the subject.

2nd. There is considerable inaccuracy in the State map as regards the western boundary of this county, as you will perceive by comparing the length thereof as surveyed, with its delineation on said map.

3rd. I can make with such data as I know have in my possession, a tolerable accurate map of this county, for the sum of three hundred dollars.

4th. There has never been a school land warrant presented in this county for location.

5th. No surveys have been made in this county by the United States Surveyors.

6th. With regard to the great stage route to the Atlantic, I would state I am entirely unacquainted with the southern routes across the Sierra Nevada, but the pass through these mountains by the New Emigrant Route, surveyed by W. G. Still in 1852, is one that in no part thereof has a grade of more than eight degrees, and it is perfectly practicable, with a very small expense, to construct a road that shall not have more than four or five degrees grade at any point. The citizens of this place appointed a committee of five to examine the route from this to Oak Valley, with the intention of constructing a wagon road, and the committee left this morning to perform the duties assigned to them. If this road should be constructed (which I have no doubt that it will be,) within five or six months, I should consider, from the information that I have received with regard to the other passes through the Sierra, that this would be the most feasible route for a stage road to the Desert, or Sink of the Humboldt; beyond that I have no reliable information with regard to the formation of the country.

7th. The swamp land mentioned in my report of yesterday, can be reclaimed by widening the channel of the branch of the Feather river, upon which they lie; but owing to the early and severe frosts that abound in that region, they cannot be considered as very valuable, except for the culture of grass, and some of the hardier grains.

All of which is most respectfully submitted,

Your obedient servant,

MYRON H. STONE,
County Surveyor, Sierra County.

By. W. G. STILL, Deputy.

COUNTY OF SISKIYOU, July 2nd, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

In the comparison of the official map of Siskiyou County with the natural divisions and localities of said County, I find a similarity between that portion of the County lying northwest of the Shasta Butte and the portion of the map drawn for that part of the County; but in the southern part there is but little correctness in the map. There are three extensive valleys lying in the southern part of Siskiyou County, and there is one lake also, that is not down on the map, and the lake is called Tule Lake, and there are two large streams running through that part of the County, but, as that part of the County is but little known, there cannot be a correct map of this County drawn without further examination; and the expense of drawing a map of this County with accuracy would not be less than a thousand or fifteen hundred dollars.

COUNTY BOUNDARY.

There is about 175 miles of County boundary, lying between Siskiyou County and the adjoining Counties, to be surveyed, as you mentioned in your circular; and their present situation answers as well or better than they can be otherwise arranged at present.

PUBLIC LANDS.

There are about 100,000 acres of land lying in the valleys of Siskiyou County, three quarters of which is adapted to tillage and grazing, and the soil is highly productive.

About one half of this land can be irrigated by aqueducts. None of the land has been townshipped or surveyed by the United States Surveyors, or sectionized. There is but little timber on this land, but on the mountains around the valleys where this land is located, there is plenty of timber for the use of the land. There are the pine, the fir, the redwood and the oak, convenient to be had.

SWAMP AND OVERFLOWED LANDS.

About one fourth of the above one hundred thousand acres of land is swamp and overflowed, and there is but a small portion of that which can be reclaimed. It is are now covered by Mexican grants.

The necessary information relative to the amount of land and the quality of it, can be had at a moderate expense.

As I have stated, there have been no surveys made in Siskiyou County by the United States Surveyors, and I think that there will be near one fourth of the land in this County marked as swamp and overflowed lands.

THE MINES.

The mines in Siskiyou County are paying a reasonable income. The creek and river leads are paying better at present than the dry diggings, and the quartz rock has proved to be not quite so rich as it was supposed. The quartz mills in this County have all fell through, and ceased to run. Stentz's, Shackelford's, Moffat's and Martin's have

all quit crushing quartz, because it would not pay them. The income of the mines from the 1st of January to the 1st of July, 1854, I have not been able to find out with accuracy. The nearest I can come to it is from information I have received from Rhodes & Lusk's Express, which is in Yreka City. According to their reports, they have taken in 15,000 ounces of gold from the 1st of January to the 1st of July, 1854. These 15,000 ounces of gold are equal to \$251,250, and this Express has taken in but a small portion of the gold taken from the mines in Siskiyou County.

CONCERNING THE FIVE HUNDRED THOUSAND ACRES OF LAND GRANTED TO THIS STATE, ALSO THOSE GRANTED FOR EDUCATIONAL PURPOSES.

There are 25,000 acres of land in Siskiyou County covered by or taken up under the pre-emption law, all of which are lying in Scott and Shasta valleys and on Cottonwood Creek.

There are yet 10,000 acres of public land lying vacant in Scott Valley, but there is only a small portion of vacant land in Shasta Valley, and the remainder of the 15,000 acres of land is lying in the valleys situated in the southern part of the County. The soil of these valleys is highly productive and well watered, and the neighboring mountains are well timbered.

CONCERNING THE AGGREGATE QUANTITY OF STOCK AND PRODUCE OF THE STATE IN THE COUNTY OF SISKIYOU.

There are 2,500 acres of wheat in cultivation this season, and the land produces at an average rate of twenty bushels of wheat to the acre, which will average 50,000 bushels of wheat raised in this County this season.

There are 1,000 acres of barley sown, which will average twenty bushels to the acre, in all equal to 20,000 bushels.

There are 500 acres of potatoes planted, which will average 100 bushels to the acre, in all equal to 50,000 bushels of potatoes, raised this season.

There are 1,500 acres of oats sown this season, which will produce twenty-five bushels to the acre, equal to 37,500 bushels of oats.

Horses.....	400
Cattle.....	1200
Hogs.....	1000

Please receive the report, and excuse all failures and mistakes,

And oblige your humble servant,

E. M. STEVENS,
County Surveyor, Siskiyou County.

BENICIA, Solano Co., November, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

I now communicate the result of my examinations and inquiries, in reference to the subjects adverted to in your circular.

1st. In reference to the aggregate quantity of land belonging to the State, my estimate is, that there are about ninety-two thousand acres of tule land attached to this county, which I think is susceptible of being redeemed at no very great expense. As the tide never rises over it but a few inches, an embankment, two feet high, would secure almost the whole of it, from the head of Suisun bay down. There are fifty thousand acres of other lands, subject to overflow at every excessive rise in the Sacramento river. This land seems to me more difficult to bring into useful or profitable occupation. Of the five townships of land which are sectioned in this county, I estimate that there are about forty quarter sections adjoining the tule where the greater portion of is tule, and, consequently, belonging to the State, which, I think, the Surveyor General has had surveyed into fractions, so as to deprive the State of their right thereto. I may be under a misapprehension on this subject. These lands I consider among the most valuable in the State, and if I am right, are certainly worth looking after.

My estimate of the area of the entire county is about equal to nine hundred and six square miles, or five hundred and eighty thousand acres; of which I set down as tule, ninety-two thousand acres; as mountain and hill land, on hundred and fifty-three acres, mostly susceptible of being used for grazing purposes; two hundred thousand, as susceptible of profitable tillage; and ninety-two thousand acres rendered valueless by inundation, sterility, and other causes; and forty-three thousand acres of water surface.

Of the tule land, that adjoining the Suscol Rancho is claimed by the proprietors thereof; but I think not any of the rest is. The amount so claimed, I think, is probably about eleven thousand acres. I think about one hundred and thirty thousand acres of land is covered with timber – some of it densely, other portions more sparsely. About four hundred thousand acres of the entire area of the county are claimed by Spanish grants.

I estimate the entire amount cultivated, at seventeen thousand acres; of which, I suppose, ten thousand acres in wheat, six thousand acres in barley, five hundred in corn, three hundred in vegetables, and two hundred in oats. The yield, per acre, I estimate as follows:

200 acres Potatoes, 3 tons per acre.....	600 tons
40 “ Onions, 2 tons do.....	80 tons
Wheat, 30 bushels to the acre.....	300,000 bush.
Barley, 40 do. do.....	240,000 bush.
Corn, 30 do. do.....	15,000 bush.
Oats, 60 do. do.....	12,000 bush.

Of Grapes, there is but one vineyard in the county bearing much, (Mr. Wolfskill's,) and of the production, I cannot say. One or two others are beginning to bear a little.

In reference to the amount of stock, of course but little reliance can be placed on my estimate; but such as it is I give it. I put down, then, the number of

Horses.....	4,000
Cattle.....	12,000
Sheep.....	10,000
Hogs.....	10,000

I have a County map in progress, and shall be in Sacramento soon, and will offer it to you.

Your obt. servant,

H. PATTON,
County Surveyor.

BENICIA, September 2, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

I have examined the State Map, and find it about as near a representation as a shirt would be for a night cap! The corner of the county is made within five miles of Sacramento city! – I think it cannot be less than twenty. The Sacramento river is very inaccurately laid down. Suisun bay is improperly represented as the west line of the county. For instance, at Cordelia, the map shown a distance in a northwest direction of fifteen or twenty miles, when it is really not more than seven.

In reference to the miles necessary to be run to settle the boundary of the county with perfect accuracy: so much of the boundary of this county is natural, I think twenty-five or thirty miles will be all that are necessary. From Cache Creek slough, or Merritt's slough, to the mouth of Putah creek, cannot be possibly, I think, be ten miles, and from Suscol creek to Putah creek, cannot be more than twenty; all the rest of it being a natural boundary, it wit: Cache Creek slough, Sacramento river, Suisun bay, Straits of Carquines, San Pedro bay, Napa creek, Suscol creek, and Putah creek; and I know of no alteration that could be made advantageously.

In regard to my return of the School Land Warrants, I would readily communicate any other information that may be desirable. At your suggestion, I am engaged in

making a County Map, which I shall offer at the cheapest possible rate, when ascertained, after completion.

Respectfully,
Your obedient servant,

H. PATTON,
County Surveyor, Solano Co.

P. S. The owner of Warrants No. 13 and 14, and 336 and 337, desires me to make inquiry whether their location had been reported at your office.

You will perceive by my return of the School Warrants No. 51, 53, 534, and 540, the manner in which the public surveys are being made: that is, so as to include all the upland. Now a small strip of high land connected with the tule, makes a very desirable location; and as I understand the law, such mode of surveying is unwarrantable. When more than half of a tract is tule land, it all belongs to the State, and if more than half upland, then to the United States. On the plan of this survey, there can be no such division. I think the State officers should remonstrate against such a proceeding. The fraction on section 13 belongs to the State without any doubt. I will say nothing at present in reference to other lands that may be improperly described. I think there will be some lands erroneously described as being subject to inundation; but it seems to be very unjust to require officers to perform laborious and important duties without compensation, and here I enter my protest against such proceeding.

H. PATTON.

SACRAMENTO, November 27, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Dear Sir:

In compliance with your circular, I send you the following report, and trust it will prove satisfactory.

The San Joaquin river would be navigable if the snags were taken out, from its mouth to the mouth of the Merced river, for the largest class of steamboats, eight months in the year; and from the formation of its bed, it being quicksand, if boats were constantly plying on it at low water, it would admit of boats drawing from three and a half to four feet.

The plains in this county could be irrigated by taking the water from the rivers running through it at the foot of the mountains, by means of canals. It is not expedient at present, for it would be attended with great expense, and have but few

consumers. We have good reason to believe, from the situation of the arable lands in this county, that Artesian wells can be sunk successfully; if so, it would be much more convenient than any other mode of irrigation.

Gold is the only mineral found in this county in sufficient quantity to pay for working. Immediately on the Stanislaus river, beginning at the north-east corner of the county, gold is found in sufficient quantity for seven miles below, to pay the miner for working in the dry season; the average wages being about \$4 00 per day. On the Tuolumne river, at the point where the county line crosses it, and for four miles below, gold is found and worked during the dry season, paying about the same as on the Stanislaus river. The mines are known by the name of French Bar. For one or two miles south and south-east of these mines on the river, the flats and gulches have been prospected, and in places have proved to be rich; they have been worked to some extent, but abandoned at present for the want of water.

I would state that I have had no School Warrants to locate. By looking at the accompanying map, you will see that I have marked a portion on both sides of the San Joaquin river, as overflowed land. The whole I have marked was overflowed in 1850, '52 and '53, and one-half or two-thirds was overflowed in 1851 and '54. You ask if all or any portion of this can be reclaimed? I would answer that it is impossible; and if an explanation of the causes which prevent their reclamation is required, I will endeavor to explain them satisfactorily.

There is from thirty-five to forty thousand acres of overflowed land in this county. It has a sufficient quantity of oak and willow timber growing on it for fuel and fencing for many years, but valuable for no mechanical purposes. This land is only desirable for grazing, and for that purpose is very valuable. Many have already settled on the uplands adjoining the overflowed lands, with the intention of entering it by pre-emption law, and in hopes that the State will look to her interest and dispose of the overflowed lands, so that each settler, or the oldest settlers, will be entitled to enter at least 160 acres, and that adjoining to his pre-emption.

Between the San Joaquin river and Coast Range of mountains there are 130,000 acres of arable land; it being of a rich soil, is well adapted to tillage or grazing purposes. On this there is no timber. The low hills are good for grazing, and will be valuable for that purpose in time.

I cannot give a very correct estimate of the land on the east of the San Joaquin river. The bottom land on the Stanislaus and Tuolumne rivers is nearly all settled, and under good cultivation. The low hills and plains are all arable, and nearly the whole would be desirable for either grazing or agricultural purposes, if it was not for the scarcity of timber and water. The only timber that is found on them is the oak, and of a small growth. By looking at the map you will see that I have marked the portion that is timbered with the letter F. I believe that nearly all of the land east of the San Joaquin has been sectionized, but I learn that it is being done over again on account of some error.

I have seen the Surveyor that located the School Warrants in this county when it was a portion of Tuolumne county, and he stated to me that he had made returns to the Surveyor-General of each one at the time of survey.

Your obedient servant,

SILAS WILCOX,
County Surveyor, Stanislaus County.

COUNTY SURVEYOR'S OFFICE,
SONORA, Dec. 4, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

I have the honor to transmit to you, in accordance with the law defining the duties of my office in connection with that of the Surveyor-General, the following Report. That many deficiencies which appear are attributable both to the recent period at which I have entered upon the duties of my present post, and the very limited means I have of obtaining information upon many of the subjects submitted, in your circular, to my consideration, which are evidently entirely distinct from the profession of the Engineer or Surveyor.

Very respectfully,
Your obedient servant,

WM. H. FINNEY,
County Surveyor of Tuolumne County.

REPORT

The only information "relative to each and every article mentioned in the 9th section of an Act concerning the office of Surveyor-General, passed April 17th, 1850," which I have been able to obtain, is briefly given.

1st. Art. 2nd of 9th Section. As is well known, there are no navigable streams within the County of Tuolumne, and none which are susceptible of being made so; the only rivers within its limits, the Stanislaus and Tuolumne, having their sources amid the rocks of the Sierra Nevada, and running throughout their entire course through the county over an irregular, narrow, rocky and steep bed. Hence, no lands are to be found within our borders subject to overflow, and no marshes which require drainage. There are no "turnpikes, railroads, canals (in the generally accepted meaning of the word) or aqueducts" completed, and none contemplated. The County roads within the County are nearly all of a local character, and are under the control of the Supervisors of the County. I may be permitted to mention, in this connection, that the new emigrant Road,

leading into the County through "Sonora pass," is one which appears to me to partake of a public character, and, as such, entitled to the fostering care of the State Government. From Sonora to the point where this road passes into Utah Territory, the distance is about seventy-five miles; thence to its intersection with the old route is about one hundred miles. The only difficulties to be encountered on the Sonora route by the emigrant are found in that portion of it (the seventy-five miles) which lies within the limits of our County. A few thousand dollars, judiciously expended, would make this an excellent mountain road. The advantages from such a consummation, not only to this and the adjoining Counties, but the entire southern portion of the State, are too palpable to require demonstration, and cannot fail, it is hoped, to attract the favorable attention of those who have the control of such matters.

"The mountains," (as all that portion of the County to the north of Sonora, and embracing, perhaps, more than one third of its whole extent, is called) contain the finest timber; spruce, pine, hemlock, sugar-pine, etc., abounding in almost inexhaustible quantities. Many mills are now engaged, at different localities throughout them, in sawing lumber for this and the Stockton markets. Nearly, if not quite all, of any worth in the neighborhood, has been cut, whilst very much of the frost will, perhaps, (from its inaccessibility) remain forever undisturbed by the hand of man.

2nd. 3rd Article of same Section. I cannot discover, after due inquiry and search, that there are any lands in Tuolumne County belonging to the State. I am, however, inclined to believe the entirety of it subject to the control of the general government, as no portion of it, not even that which has been generally regarded as only agricultural, is free from the presence of the precious metal.

3rd. Articles 4th, 5th, 6th, and 7th. As any estimate I could give on the subject referred to in these articles would be only a matter of guess-work, it appears to me quite unnecessary to attempt any.

4th. Section 13. As the surveys which I have made since entering upon the duties of County Surveyor have been but few, and those isolated plats of ground, having no marked connection with any "known point, determined astronomically by the U. S. Surveys," I presume it a work of supererogation to transmit them.

COUNTY BOUNDARIES.

Presuming that reference is had, in speaking of the number of miles of boundary required to be run "previous to the 1st of January, 1856," to the number which are of an artificial character, and which, so far as I can learn, have never been chained and defined, I would represent that the entire boundary line between this and Mariposa County, as well as on the northeast, dividing this and Calaveras County, being, perhaps, (for I cannot speak advisedly, having but a slight acquaintance with those portions of the County) one hundred or one hundred and twenty-five miles, should be more accurately defined than it now is. The boundary between this and Stanislaus County, required by an Act of the last Legislature to be run by the county Surveyors of the two counties, is as yet undetermined, each Surveyor running his own line and the two not agreeing.

Should the Board of Supervisors of Tuolumne County see fit to grant a petition which has been presented by the various magistrates in the County, praying that, for the better knowledge of their jurisdiction, the County be laid off into Townships, I should be

enabled upon the completion of that work, to afford the Surveyor-General more reliable information upon many points referred to in this report.

All of which is respectfully submitted,

WM. H. FINNEY,
County Surveyor of Tuolumne County.

[C.]

CIRCULAR TO COUNTY ASSESSORS.

SURVEYOR GENERAL'S OFFICE,
Sacramento, June 1, 1854.

Sir: -

Allow me respectfully to call your attention to the following extracts from the laws defining the duties of your office in connection with that of the Surveyor General:

First. From "An Act concerning the office of Surveyor General," passed April 17, 1850.

"Sec. 9. He shall deliver to the Governor annually, on or before the fifteenth day of December, his Report, which shall contain –

1. An accurate statement of the progress he may have made in the execution of the surveys enjoined on him by law, and in the preparation of the Map of the State.

2. Plans and suggestions for the improvement of the internal navigation of the State, and for construction and improvement of roads, turnpikes, railroads, canals and aqueducts; also, plans and suggestions for the planting, preservation and increase of forests of timber trees, for the draining of marshes, prevention of overflows, and the irrigation of arable lands, by means of reservoirs, canals, artesian wells, or otherwise.

3. An estimate of the aggregate quantity of land belonging to the State, and the best information he may be able to obtain as to the characteristics of the same.

4. An estimate of the aggregate quantity of all lands used for or adapted to tillage and grazing within this State, and each County of the State, together with a description of the locations in which the same may be situated.

5. An estimate of the aggregate number of horses, cattle, sheep and swine within the State, and each County of the State.

6. An estimate of the aggregate quantity of wheat, rye, maize, potatoes, grapes and other agricultural productions of the preceding year, together with his views as to the presence, cause and remedy of any diseases, or other mischief, preventing a full and proportional return and increase of the same.

7. An estimate of all mineral lands within the State, and each County of the State, and the quantity and value of each mineral produced during the preceding year, together with a description of the localities in which such minerals may be found.

8. All facts which may be within his personal knowledge, or which he may learn from reliable sources, and which may, in his opinion, be calculated to promote the full development of the resources of the State.

Sec. 10. he shall address a circular letter to the County Surveyors and County Assessors instructing them, and it is hereby made a part of their official duties, to use their utmost diligence in collecting information relative to each and every matter mentioned in the ninth section of this Act, and to transmit to him quarterly, at the Seat of Government, a report in writing setting forth the result of their inquiries.

Sec. 11. He shall, with his annual report, transmit to the Governor all reports which he may have received from his deputies, as mentioned in the tenth section of this Act."

I will be obliged to you for a list of bridge companies in your County immediately.

I would urge upon you a careful examination of this circular, and as strict a compliance with its requirements as you may find possible.

Your last report for this year should reach me by the middle of November next, that I may avail myself of its contents in making out mine, which must be presented by the middle of December.

Please acknowledge the receipt of this immediately, and oblige,

Very respectfully,
Your obedient servant,

S. H. MARLETTE,
Surveyor General.

To -----, Esq., County Assessor.
----- County.

OFFICE OF COUNTY ASSESSOR OF ALAMEDA COUNTY,
Alvarado, November 1, 1854.

Hon S. H. MARLETTE,
Surveyor General:

Sir: -

The amount of land under cultivation in this County is 61,000 acres:

In barley.....	24,000 acres.
In wheat.....	20,000 acres.
In oats.....	6,000 acres.
In potatoes.....	5,000 acres.
In nurseries, trees, etc.....	1,000 acres.
In cabbage, etc.....	2,000 acres.
In Canary Beans, plants, etc.....	3,000 acres.
Total.....	61,000 acres.

STOCK

Cattle.....	110,000
Horses.....	60,000
Sheep.....	20,000
Hogs.....	13,000
Goats.....	350

The yield of wheat per acre.....	36 bushels
“ barley “.....	66 bushels
“ potatoes “.....	200 bushels
“ oats “.....	80 bushels

The Surveyor will answer the rest of your circular.

Yours, etc.,

G. W. GOUCHEE,
County Assessor.

COUNTY ASSESSOR'S OFFICE,
Amador County, Dec. 11, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir: -

In compliance with your request of date November 1, 1854, I herewith send to you a copy of the total aggregate from the assessment roll:

17,443 acres of agricultural land, valuation.....	\$83,725
263 town lots, valuation.....	59,445
Value of improvements.....	412,857
Value of personal property.....	482,416

Total valuation of property.....	\$1,038,443
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Horses.....	416
Cattle.....	1,158
Hogs.....	3,673
Bushels of wheat.....	16,248
“ barley.....	27,712

“ oats.....	13,327
Tons of hay.....	1,411
Value of improvements for quartz mining.....	\$30,800
Value of quartz mines.....	276,000
Annual yield of gold from quartz.....	280,000

I, Henry A. Eichelberger, County Assessor of Amador County, do hereby certify that the above is a correct statement from the assessment roll.

H. A. EICHELBERGER,
County Assessor of Amador.

BIDWELL, Butte County, Nov. 27, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir: -

Your circular of November 1st, was received the 23rd inst. I have no documents by which I can make out a report fulfilling the requirements of the 9th section of an act concerning the office of the Surveyor General.

There is a bridge company incorporated at this place for the purpose of building a bridge across the River. No other companies in the County.

Very respectfully,
Your obedient servant,

MILES CHAPIN,
Assessor of Butte County.

ALAMO CITY, Contra Costa County, Dec. 7th, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

I received your circular a few days since, and I very much regret that the law to which you called my attention had entirely escaped my notice.

I am not able to furnish you with a report that is entirely satisfactory to myself; yet I will endeavor to do the best that I can from the facts before me; and I further promise a strict compliance according to law, the ensuing year.

There are one hundred and seventy-four thousand four hundred and seventy-three acres of land held under title in the County; two thousand nine hundred and fifty-three horses; sixteen thousand three hundred and twenty-two cattle; nine thousand five hundred and eight hogs; thirteen thousand one hundred and forty-six sheep; two hundred and twenty-eight mules.

If I were to undertake to give you the number of acres of tillable land in the county, the description of the products, etc., it would all be guess work, and therefore I will pass the matter over.

Yours respectfully,

J. M. JONES,
County Assessor.

HUMBOLDT COUNTY, Nov. 13th, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

In compliance with your request by circular, and in conformity with the Act of the Legislature of the State of California defining the duties of the County Assessors in connection with the Surveyor General, I transmit the following report:

The quantity of land under cultivation in this County is probably about two thousand five hundred acres. This is chiefly situated in the valleys of Eel river and mad river, bordering on the bay; and there probably remains independent of this, three times the above amount suitable for cultivation. The area of land adapted to grazing is very extensive.

The soil if of excellent quality, producing grains and esculents in great abundance and variety. The exact limits and boundaries of this County are not defined, in consequence of no survey being completed; owing to this fact, there are continued disputes as to the whereabouts of the boundaries between this and Klamath.

As yet but little fruit has been raised, but another year or two will add greatly to this branch of agriculture. There is a large number of fruit trees of every variety adapted to this climate, in fine growth, and some have already borne fruit. The quantity of mineral land known in this County is small.

The number of horses, cattle, etc., of this County, as stated below, is as correct as possible, although many immigrants have located in the County since these were enumerated, and have added to the number somewhat.

Number of Horses.....	320
“ Mules.....	360
“ Milch Cows.....	412
“ Cattle.....	1400

The quantity of produce raised in the County, I give as follows:

Wheat, bushels.....	14,000
Oats.....	16,000
Barley.....	6,000
Potatoes.....	20,000

Respectfully,

D. D. WILLIAMS,
Assessor.

OFFICE OF THE COUNTY ASSESSOR,
LOS ANGELES, November 13th, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

In compliance with your circular, and in conformity with an act passed on the 17th of April, 1850, I transmit the following information:

The improvement of roads in the County has greatly facilitated the passing of wagons and carriages from Tejon to Tulare, Sacramento and other points. On the rancho of San Francisco, \$6,000, have been expended in cutting down a hill, and other improvements are still being made in San Bernardino.

Great improvements have been made in this city, during the present year. In the county 20,000 acres of land are under cultivation, and of these, 15,000 have been irrigated by natural canals.

The produce of the County is as follows: wheat, 10,088 fanegas; barley, 20,200 fanegas; potatoes, 10,500 quintals; beans, 4,000 fanegas; Indian corn, 2,100 fanegas; fruit trees, 4,968; grape vines, 394,200, which produce as follows: 3,133,600 lbs. of grapes; black cattle, 100,531; tame horses, 15,798; oxen, 798; sheep, 26,066; hogs, 1,706. this year has been very good for vines and all productions in general, except wheat, which has been damaged by rust, to a great extent. The planting of trees is progressing rapidly, the orange tree and sugar cane the same; also the planting of sweet potatoes, and generally in the articles of cultivation, all are progressing.

I remain, sir,
Respectfully yours,

A. F. CORONEL,
County Assessor.

SAN BERNARDINO COUNTY, Nov. 4th, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

In reply to the requirements contained in your circular of the first of June last, I herewith transmit my report of the same, for the present year, (1854) in the following style:

First: all lands in the County, together with their qualities and locations, names of ranchos and the productions thereof, etc.

THE RANCHO SAN BERNARDINO.

Is situated under the mountain in front of the Cajon Pass, and is surrounded on the south side by a range or chain of high hills. This rancho is situated in one of the finest valleys in the State, well watered with many fine streams, flowing and running down from the mountains, which form the river called the Santa Anna, making its way into the Pacific south-west of San Bernardino City. This valley contains something near forty leagues of fine rich land, well adapted for the growing of all kinds of grain, vegetables and fruits; also, this valley is a fine grazing country for all kinds of stock, and has much timber in the valley for fuel. The mountains on the north are covered with much fine pine and other lumber, so much that it can never be exhausted. The people of this valley have built a fine road up the mountain to the lumber, where they have five saw mills. One of the mills goes by steam, the others by water power. They have three other saw mills in the valley: one for sawing, boring and mortising lumber for fencing, which should be called a fencing machine. They also have a large fine flouring mill in

the valley, which manufactures large quantities of superfine flour. The people of San Bernardino Rancho all work together in the same field, which makes large fields. There was, in small grain, on the Rancho San Bernardino, the past year, some four thousand acres in wheat, barley and oats. Two or three thousand acres failed, on account of not being put in in proper style. It was sown on the ground among the old stubble and only harrowed in, therefore it hardly was worth cutting; did not yield a fourth crop, hardly more than one-eighth. Also, two or three hundred acres of good wheat taking fire from some persons cooking in the field in time of harvest, which leaves three thousand and five hundred acres of wheat, barley and oats, twenty-five hundred in wheat and one thousand in barley and oats, the wheat yielding an average of twenty bushels per acre, making fifty thousand bushels of wheat raised on the rancho the past season; the barley and oats yielding twenty-five bushels per acre, making twenty-five thousand bushels raised on the rancho the past season. The corn raised on the rancho supposed to be about one thousand bushels; potatoes about two thousand bushels; cabbage, beets, etc., in abundance.

The Mormon people, on the San Bernardino Rancho, have set out or planted quite a large quantity of grape vines, which bore some few grapes the past season, and are expected to bear a good quantity next season. There are in all supposed to be about fifty thousand vines. They have also set out quite a number of fruit trees of the different kinds. There were some peach trees that bore some few peaches the past season.

The citizens of this valley are building up the city of San Bernardino, which has been chartered, laid off and organized two miles square. They are putting up a good number of splendid buildings, on a most beautiful site.

The above rancho has not yet been surveyed or set off, though there has been eight leagues confirmed by the U. S. Land Commissioners. The proprietors of Rancho San Bernardino (Lyman & Rich,) claim the whole valley, which I have said to you is about forty leagues. The reason why they claim the whole valley, is that they bought the whole valley and have paid for the same. They hold bonds for a warrantee title, etc.

Amount of Grain, Vegetables, etc., on Rancho San Bernardino.

Wheat, number of bushels.....	50,000
Barley and Oars, number of bushels.....	25,000
Corn, " ".....	1,000
Potatoes, " ".....	2,000
Onions, " ".....	2,000
Beans, " ".....	200
Grapes, number of lbs.....	

THE JARUPA RANCHO.

This rancho is one among the finest in our County. It joins the San Bernardino Rancho on the south-west, and runs down the Santa Anna river on both sides, a distance of thirty miles. It is a fine grazing country on both sides of the river, and it also well adapted for farming and growing all kinds of grain, fruit and vegetables. This rancho is claimed by Don Juan Bandina. There has been confirmed by the U. S.

Commissioners, seven leagues of said rancho, but has not been surveyed or set off. There will be a large portion that will fall to the government. A part of this same Rancho has been sold to Lewis Robidoux, Esq., say about three leagues, and another portion given by Bandina to some New Mexicans for a settlement. They have a settlement of about twenty families, who have fine small farms, gardens and vineyards in cultivation. L. Robidoux, Esq., has quite a fine farm and grows and raises about one thousand bushels of wheat and about one thousand bushels of barley, together with many vegetables. He also has a fine vineyard coming on, which will bear the next season.

The Mexican settlement raised about two thousand bushels of wheat and barley, say fifteen hundred bushels of wheat and five hundred of barley, also, about one thousand bushels of corn, and about five hundred bushels of beans, five hundred bushels of onions, together with cabbage, potatoes and other vegetables in abundance.

Amount of Grain, Vegetables, etc., raised on the Rancho Jarupa, for the year 1854.

Number of bushels of Wheat.....	2,500
“ “ Barley and Oats.....	1,500
“ “ Corn.....	1,000
“ “ Potatoes.....	
“ “ Onions.....	500
“ “ Beans.....	500
Number of lbs. of Grapes.....	

THE RANCHO DEL CHINO.

This ranch is both fine and beautiful, having all the facilities for cultivating everything that we may wish to grow. It is also a very fine country for grazing stock of all kinds, and is bounded on the south side by the most beautiful hills, which are covered with wild oats in their season. Also, in those hills there is a fine tar spring, which is used for many purposes. The Mexicans cover their houses with this tar. The land in the valley is fine and rich, suitable for growing anything at all. The proprietor of this rancho (Col. Isaac Williams,) does not farm on a large scale, but raises a great quantity of stock of all kinds, horses, cattle, sheep and hogs. The Col. gave in to me eight and one-half leagues of land, though I think there is about twice that amount of first quality, and this rancho has not been set off. The grain raised on this rancho is about two thousand bushels of wheat and about two thousand bushels of onions. The Col. has quite a fine young orchard of the different fruits set out, and is commencing to bare. There were some peaches the past season. This rancho lies south-west of the city of San Bernardino, and about thirty miles distant, and joins the County of Los Angeles.

Amount of Grain, vegetables, etc., raised on the Rancho del Chino, for year 1854.

Number of bushels of Wheat.....	2,000
“ “ Barley and Oats.....	2,000
“ “ Corn.....	
“ “ Potatoes.....	500

“	“	Onions.....	200
“	“	Beans.....	
Number of lbs. of Grapes.....			

THE RANCHO DE JUAPA.

This is a beautiful rancho, both for grazing and cultivation, and joins the Jarupa Rancho on the north, the Rancho de la Sierra on the south, the Rancho del Rincon on the south-west and the Rancho del Chino on the west, lying on the Santa Anna river, a distance of thirty miles south-west of the city of San Bernardino. This rancho contains four thousand five hundred acres of land. Nothing cultivated there this last year, though there are grazing on the rancho some two or three thousand head of cattle. This rancho belongs to the heirs of Tomas Yorba, deceased.

THE RANCHO DE LA SIERRA.

This rancho is quite fine for grazing and small portions of it are well adapted for cultivation, and contains four thousand five hundred acres, and is owned by Don Bernardo Yorba, a Californian. Nothing cultivated on the rancho the past season. There are some houses and corrals and two or three thousand head of cattle grazing.

THE RANCHO DEL RINCON.

This rancho is divided from the Ranch de la Sierra by the Santa Anna river, and joins the rancho del Chino on the west and Los Angeles County on the south, also, the Rancho Jarupa on the north, and contains four thousand five hundred acres of land, the one-half of which is fine, rich soil and well adapted for cultivating anything one may need to grow, though there was nothing raised on the rancho the past season worth mentioning. There are some three or four thousand head of cattle grazing on the rancho at present. Both of the above named ranchos are owned by Don Bernardo Yorba.

THE TEMASCAL RANCHO.

This rancho lies fifteen or twenty miles east of the Rancho de la Sierra and in a south-east direction from the city of San Bernardino, a distance of thirty-five miles; it joins San Diego County on the east and Los Angeles County on the south. This rancho is very fine for grazing, and there are about one thousand acres of fine land for cultivation. There is a small vineyard and also some fruit trees, apples, pears and other fruits. I could not find out or learn how much land there was in the above rancho. There is a good number of horses and cattle grazing on it.

THE RANCHO CUCAMONGA.

This rancho lies west of the city of San Bernardino, twenty-five miles distant, immediately on the road to Los Angeles. This is the most beautiful rancho in the county, but not very large. Mr. L. V. Prudhouse, the owner, only gave in to me four leagues of land. It lies close up under the mountains and is well watered by fine and

beautiful streams running from the mountains. There are two vineyards on this rancho. Both together have thirteen thousand five hundred vines, which average a yield of fifteen pounds per vine, making two hundred and two thousand five hundred pounds of grapes raised on this rancho the past season. There is also a fine orchard of different fruits, peaches, pears, etc., bearing in abundance. There was also cultivated in corn and wheat, one hundred and seventy-two acres, which yielded as follows: two acres of corn yielding forty bushels per acre, making eighty bushels of corn, and one hundred and seventy acres of wheat yielding twenty bushels per acre, making three thousand four hundred bushels of wheat raised on the rancho the past season. This rancho has not been surveyed or set off as yet.

Amount of Grain, vegetables, etc., raised on the rancho Cucamonga for the year 1854.

Number of bushels of Wheat.....	3,400
“ “ Barley and Oats.....	
“ “ Corn.....	80
“ “ Potatoes.....	
“ “ Onions.....	
“ “ Beans.....	
Number of lbs. of Grapes.....	202,500

Total Amount of Grain, Vegetables and Fruit raised in the County of San Bernardino, for year 1854.

Number of bushels of Wheat.....	57,900
“ “ Barley and Oats.....	28,500
“ “ Corn.....	2,080
“ “ Potatoes.....	2,500
“ “ Onions.....	2,700
“ “ Beans.....	700
Number of lbs. of Grapes.....	202,500

The Amount of Stock in the County of San Bernardino.

Number of head of Horses.....	1,700
“ “ Mules.....	191
“ “ Cattle.....	19,025
“ “ Sheep.....	9,433
“ “ Goats.....	130
“ “ Hogs.....	697

Sir: - The above report is made out the best I know how, from the chance that I had to make a report. I also believe it to be very correct, to the best of my knowledge.

Very respectfully,
Your obedient servant,

V. J. HERRING,
County Assessor.

SAN JOAQUIN COUNTY, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

The information required in the first, second, third and fourth articles of your circular, it will be next to impossible for me to furnish you, at present, at least. But I have endeavored to ascertain as near as possible all matters of information required by the fifth and sixth articles of the same, and you will find it annexed:

Number of Horses.....	3,016
Number of Mules.....	1,063
Number of Sheep.....	3,167
Number of Hogs.....	9,497
Number of Cattle.....	10,215
Number of acres of wheat.....	13,111
Number of acres of barley.....	20,116
Number of acres of oats.....	1,954
Number of acres of corn.....	87
Number of acres of potatoes.....	85

Owing to our not receiving your circular until we had commenced our assessments, it probably may not be quite as accurate, as it would have been had we had it at the commencement. However, I think it can be relied upon as very nearly correct.

I find no disease in the crops in this county, except smut. The smut in the wheat crop, which is quite prevalent in some parts of the county. The cause I am not able to tell, but I have been told by several farmers that have tried it, that washing the seed in a weak lye before sowing will entirely remedy the disease in the growing crop. Consequently, I think a great deal of this disease is the result of bad and foul seed.

Should anything further come to my knowledge concerning any matters required of us by your circular, I will give it to you at the earliest opportunity. The foregoing is as correct as was possible for us to obtain under the circumstances.

I remain, respectfully,
Your obedient servant,

C. CARROLL TERRILL,
Deputy County Assessor,
San Joaquin County.

SHASTA, Sept. 21, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

The aggregate quantity of lands used for or adapted to tillage and grazing in this County, as coming under my observation as Assessor, is 64,869 acres.

Number of Horses.....	1200
“ Mules.....	1500
“ Cattle.....	2400
“ Sheep.....	1000
“ Swine.....	2000
 The quantity of Wheat, bushels.....	 10,000
“ Barley, “.....	60,000
“ Potatoes, “.....	10,000

I will here state that the wheat crop in this County was blighted by smut to some extent. To remedy the above I would recommend that the seed wheat be well washed, and rolled in dry lime while damp, and sown before dry. I have witnessed the above remedy in the Atlantic States, and found it to be effectual.

No other mineral than gold has as yet been discovered, and as to the amount produced I am unable to give an estimate.

I have here given a full estimate of all information relative to each matter mentioned in the ninth section of the Surveyor-General's duties, so far as I have any knowledge. I will further state, that from and after the time I received your circular, I have used due diligence in obtaining information, of which you have the result.

Very respectfully,
Your obedient servant,

S. E. JACK,
Assessor or Shasta County.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

Inconformity with the tenth section of "An Act concerning the office of the Surveyor General, passed April 17, 1850," I beg leave to make the following report:

1. There are no navigable streams within this county.
2. There is, probably, no county in the State that exhibits more tardiness in the improvement or construction of roads and highways than this; principally on account of the mountainous character of the country. During the past year, many additions and improvements have been made, and new roads, or rather trails, have been opened. A project is now in contemplation for the construction of a road along and following the river bank from the County Seat to Indian Valley, thence ascending the hill, and connecting with the Yuba County road at Foster's Bar. It is hoped that the design may be carried to its completion, and thus afford a practicable wagon road, at all seasons of the year. The estimated expense of the work is about thirty thousand dollars. The estimated expense of the work is about thirty thousand dollars. There is no expedient that could be introduced better calculated to develop the resources of the county.
3. I am not aware of any land or lands belonging to the State in this county.
4. About twenty-five hundred acres of land are at present under successful cultivation, principally situated upon the flats or in small valleys; the mountainous character of the county forbidding extensive culture.
5. Sierra valley is situated on the head waters of the middle Fork of Feather river, being about forty miles in length by eight miles in breadth – all of which is well calculated for grazing, and some portion for agricultural purposes.

6. Number of Horses and Mules.....	500
" Cattle.....	400
" Sheep.....	200
" Swine.....	1,200

7. Vegetables are cultivated to a considerable extent, though not sufficient for domestic consumption. Wheat, Barley and Maize, are among the products of the county, the extent of which no accurate estimate can be formed; probably about eight hundred acres.
8. No disease has made its appearance in the productions of the county. Early frosts frequently injure portions of produce before they mature.
9. The geological and mineralogical description of Sierra county, offers unlimited fields for speculation and research. Broken, rugged, and uninviting as it may appear to the casual observer, its mountains and valleys present more objects of curiosity and interest than the same space in any other part of the known world; independent of the valuable metals to be obtained by apparently unlaborious efforts.

In reference to the geological survey of the county, great facility for obtaining information is offered by the progress of mining operations. The most hidden recesses of nature are invaded by the persevering miner in search of gold. The bases of hills are perforated for hundreds of feet, rivers are changed from their natural courses, and whole mountains are occasionally removed, to discover the hidden treasure.

The primary formation of unstratified rock may be seen at different points, denuded by mining operations. It is exceedingly hard, requiring the most sever labor to penetrate.

The secondary formation, and tertiary formations are here of infinite interest; but the two last, only, are pertinent to this report.

The tertiary contains the principal objects of interest: gold, silver, platina, galena, iron, magnesia, and sulphur.

Gold is found in veins, alluvial deposits, and in infinite small particles distributed through quartz rocks.

Silver is found native with gold, an in the form of sulphurets.

Platina is fund in fine scales, with gold, iron, and lead.

Galena is found in veins, and in detached lumps in the alluvial deposits.

Iron is found in the forms of sulphurets and oxides, in most every part of the county.

Magnesia is found in the form of carbonate, in the northern part of the county.

Sulphur is found in the northeasterly part of the county, impregnating the waters, and, also, in masses thrown up, apparently, by volcanic action.

10. The estimated value of the gold realized in the county during the past year is about eight million of dollars.

I have the honor to be,

Your most obedient servant,

FRANCIS M. PROCTOR,
Assessor Sierra county.

YOLO COUNTY, August 8, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir:

In obedience to the instructions contained in your circular addressed to County Assessors, allow me to submit the following report:

The number of Horses in my county is..... 5,000

Number of Cattle.....	20,000
Number of Hogs.....	33,000
Number of Sheep.....	4,200
Number of acres of barley.....	40,000
Number of acres of wheat.....	8,000

Wheat and barley are the principal products of the county, there being but little of anything else grown.

Very respectfully,
Your obedient servant,

D. P. DIGGS,
Assessor Yolo County.

[D.]

STATISTICS FROM REPORTS OF COUNTY SURVEYORS AND COUNTY ASSESSORS FOR THE YEAR 1854.

COUNTIES.	Acres Cultivated.	Wheat.		Barley.		Oats.		Potatoes.		Horses.	Cattle.	Sheep.	Hogs.	Mules.
		Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.					
Alameda (A)	61,000	20,000	720,000	24,000	1,584,000	6,000	480,000	5,000	1,000,000	60,000	110,000	20,000	13,000	-
Amador (A)	-	-	16,248	-	27,712	-	13,327	-	-	416	1,158	-	3,673	-
Contra Costa (A)	-	-	-	-	-	-	-	-	-	2,953	16,322	13,146	9,508	228
Humboldt (A)	2,500	-	14,000	-	6,000	-	16,000	-	20,000	320	1,400	-	-	360
Los Angeles (S)	20,000	-	*10,088	-	*20,200	-	-	-	\$10,500	15,789	100,53	26,066	1,706	-
Marin (S)	-	-	-	-	-	-	-	-	-	2,000	9,000	2,000	2,000	-
Plumas (S)	-	-	-	-	-	-	-	-	-	200	450	-	200	-
San Bernardino (A)	-	-	57,900	-	†28,500	-	-	-	2,500	1,700	19,025	9,433	697	191
San Joaquin (A)	-	13,111	-	20,116	-	-	1,954	85	-	3,016	10,215	3,167	9,497	1,063
Santa Clara (S)	29,800	20,000	750,000	5,000	250,000	2,000	60,000	-	-	-	-	-	-	-
Shasta (A)	-	-	10,000	-	60,000	-	-	-	10,000	1,200	2,400	1,000	2,000	1,500
Sierra (S)	1,500	-	-	-	-	-	-	-	-	500	400	-	1,000	-
Do. (A)	2,500	‡800	-	-	-	-	-	-	-	400	400	200	1,200	-
Siskiyou (S)	-	-	50,000	-	20,000	-	37,500	-	50,000	400	1,200	-	1,000	-
Solano (S)	17,000	-	300,000	-	240,000	-	12,000	-	600 tons	4,000	1,200	10,000	10,000	-
Yolo (A)	-	8,000	-	40,000	-	-	-	-	-	5,000	20,000	4,200	33,000	-

The initial, A. or S., signifies Surveyor or Assessor's Report.

* Fanegas.

† Barley and Oats.

‡ Wheat, Barley and Corn.

§ Quintales.

NOTES.

Alameda, (S.) – Area, 800 square miles. No mineral lands. Nearly all the arable land claimed by Mexican grants. All “townshipped” by the General Government – none “sectioned.” Overflowed and subject to overflow, 20,000 acres. Wheat, 36, Barley, 66, Oats, 80, and Potatoes 200 bushels to the acre. Nurseries, trees, etc., 1,000 acres. Beans, plants, etc., 3,000 acres. Goats, 3,350.

Amador, (A.) – 1,141 tons Hay. Arable and grazing lands, 17,443 acres, valued at \$83,725.

Calaveras, (S.) – 37,000 acres “taken up” for agricultural and grazing purposes.

Contra Costa, (A.) – “There are 174,473 acres of land held under title in the county.”

El Dorado, (S.) – Area, 2,250 square miles; 1,600 mineral – 650 not mineral lands. Extensive quarries of marble.

Humboldt, (A.) – 412 milch Cows. Arable land, 10,000 acres. Grazing lands, “very extensive.”

Los Angeles, (A.) – Fruit trees, 4968. Grape vines, 394,2000. Grapes, three million one hundred and thirty-three thousand six hundred pounds. 2,100 fanegos corn; 4,000 fanegos beans.

Marin, (S.) – Area, 700 square miles; two-thirds arable and grazing lands. Nearly all claimed under Mexican grants, and mostly townshipped. Fruit trees, 2,000.

Plumas, (S.) – 100,000 acres arable and grazing lands. Forests inexhaustible.

Sacramento, (S.) – All townshipped – none sectioned. Swamp, overflowed, and subject to overflow, 130,000 acres.

San Bernardino, (A.) – 2,700 bushels Onions. Grapes, 202,500 lbs. 2,080 bushels corn. 700 bushels beans. 130 goats.

Santa Clara, (S.) – Area, 1,000 sq. miles. Valley land, 298,000 acres. Greater part of county townshipped; none sectioned. Five flour mills, with fourteen run of stone in operation, and three mills, with fifteen run of stone, nearly completed. Wheat damaged by smut 25 per cent, - yield, 30 bushels to acre; barley, 50; oats, mines, richest in the world. 2,000 acres in vegetables. Applied for statistics, but have not received them yet.

Shasta, (A.) – “64,869 acres used for or adapted to tillage or grazing, and coming under my observation as Assessor.”

Sierra, (S.) – 30,000 acres of arable and grazing lands; 2,000 acres of swamp and overflowed lands. Gold product, 8 to \$9,000,000.

Siskiyou, (S.) – 100,000 acres arable and grazing lands. Swamp and overflowed lands, 25,000 acres.

Solano, (S.) – Whole area, 580,000 acres – land surface. 537,000 acres, water surface, 43,000. Arable lands, 200,000 acres; grazing do., 153,000; timbered do., ships and fractions, sectioned; 92,000 acres of the swamp and overflowed lands easily reclaimed; 184,000 acres swamp and overflowed, and subject to overflow. Eighty tons of Onions, and sixty acres of other vegetables. 1500 bushels corn.

Stanislaus. – 130,000 acres arable lands on west side of San Joaquin River. Not estimated on east side. Overflowed lands 35 or 40,000 acres, all very valuable.

BEEF CATTLE.

Dr. John B. Trask, State Geologist, furnishes the "Times and Transcript" with the following estimate of the beef cattle in this State:

Los Angeles.....	101,800
San Bernardino.....	27,000
San Diego.....	8,100
San Luis Obispo.....	12,500
Santa Barbara.....	40,050
Monterey.....	32,900
Alameda.....	8,200
Contra Costa.....	4,000
Shasta.....	3,000
Colusi.....	13,000
Butte.....	1,900
Yuba.....	3,327
Sutter.....	11,585
Yolo.....	12,040
Total.....	279,402

THE WHEAT CROP OF CALIFORNIA.

The following interesting information on the amount of wheat raised in California, is from the Prices Current:

Imports of Flour.

	1854.	1853.
Barrels.....	150,420	299,507
Sacks, (200 lbs).....	67,349	199,143

During the past year the flour market has been completely revolutionized, the product of our own State having taken the place which has been held by the imported article, and it having been demonstrated that the great bulk of the business hereafter to be done will be in the domestic article. As soon as it was discovered that California could grow her own wheat, it became merely a question of time *when* she would do it, and the experience of the past year has demonstrated that but a comparatively short period will elapse before the importation from abroad of this great staple will cease forever. The State has gained as much as could be desired in the demonstration of the fact that she can raise, within her own borders, not only as much, but as good a quality of wheat as any of her neighbors. The converting into equally as good flour as that

manufactured abroad, is only a question of care, capital and experience, all of which, if not here now, in abundance, can be easily brought here.

Without going into more elaborate detail on the subject than is absolutely necessary, we will endeavor to represent the market as it stands at present. According to the most carefully prepared data which we have, we find the following to have been the crop of the year, in several counties of the State, as estimated immediately before harvest. Of course it is impossible to arrive at perfect accuracy in such a matter, but the figures we give were compiled by parties who traversed the State for the express purpose of getting them together, and are probably much nearer correct than anything which has appeared hitherto:

COUNTIES.	ACRES PLANTED.	AVERAGE.	BUSHELS WHEAT.
Marin.....	335	30	10,050
Sonoma.....	16,353	23 $\frac{1}{4}$	380,207
Napa.....	17,000	20	340,000
Solano.....	6,214	25	155,350
Yolo.....	9,980	25	249,500
Yuba.....	3,655	22 $\frac{1}{2}$	82,237
Butte.....	3,725	22 $\frac{1}{2}$	83,812
Placer.....	1,545	20	30,900
Sacramento.....	3,415	25	85,375
Calaveras.....	2,142	22 $\frac{1}{2}$	48,195
San Joaquin.....	11,340	28 $\frac{1}{4}$	320,355
Stanislaus.....	4,295	14 $\frac{3}{4}$	63,350
Mariposa.....	2,365	15	35,475
Tulare.....	2,920	10	29,200
Contra Costa.....	3,785	21 $\frac{1}{2}$	81,377
Alameda.....	15,490	40	619,600
Santa Clara.....	22,745	20	454,900
Santa Cruz.....	6,530	50	326,500
Monterey.....	745	40	29,800
San Francisco.....	445	30	13,350
Total.....	135,024	25 8-15	3,439,533

NUMBER OF IMMIGRANT CATTLE FOR THE YEAR 1854.

Through Noble's Pass.....	23,000
Through Beckwith's Pass.....	11,400
By the Gila.....	9,000
Through Sonora Pass.....	5,000
Through Carson, Georgetown and Nevada Passes.....	12,000
Total.....	60,000

Add home stock of 1854.....	<u>317,307</u>
Total of beef cattle for 1855.....	377,307

ABSTRACT

OF

SCHOOL LAND WARRANT RETURNS.

[E.]

ABSTRACT OF SCHOOL LAND WARRANT RETURNS.

COUNTIES.	PRIOR TO JANUARY 1, 1854.									FOR THE YEAR 1854.									Total Returns of School Land Warrant Locations in Acres.
	No. of 160-acre Warrants.	Acres.	No. of 32-acre Warrants.	Acres.	Total acres.	160s informal	160s returned twice.	160s floated.	320s returned twice.	No. of 160-scre warrants.	Acres.	No. of 320-acre warrants.	Acres.	Total acres.	160s informal and returned twice.	320s informal and returned twice.	Floated.		
Alameda,	2	320	-	-	320	-	-	-	-	2	320	2	640	960	-	320	320	1,280	
Amador,																			
Butte,	4	640	1	320	960	640	-	-	-	-	-	-	-	-	-	-	-	960	
Calaveras,	12	1,920	4	1,280	3,200	-	-	-	-	-	-	-	-	-	-	-	-	3,200	
Colusi,	9	1,440	2	640	2,080	-	640	-	320	-	-	-	-	-	-	-	-	2,080	
Con. Costa	20	3,200	10	3,200	6,400	-	160	-	-	-	-	-	-	-	-	-	-	6,400	
El Dorado,	-	-	3	960	-	-	-	-	320	-	-	-	-	-	-	-	-	960	
Humboldt,																			
Klamath,	2	320	1	320	640	-	-	-	-	7	1,120	7	2,240	3,360	-	-	-	4,000	
L. A.,	-	-	-	-	-	-	-	-	-	2	320	3	960	1,280	-	-	-	1,280	
Marin,	43	6,880	3	960	7,840	-	160	-	320	-	-	-	-	-	-	-	-	7,840	
Mariposa,																			
Mendocino,	16	2,560	12	3,840	6,400	-	-	-	-	-	-	-	-	-	-	-	-	6,400	
Monterey,	12	1,920	1	320	2,240	1,280	-	-	-	-	-	-	-	-	-	-	-	2,240	
Napa,	11	1,760	4	1,280	3,040	-	-	-	-	-	-	1	320	320	-	-	-	3,360	
Nevada,	4	640	1	320	960	-	-	-	-	-	-	-	-	-	-	-	-	960	
Placer,	5	800	1	320	1,120	-	-	-	-	-	-	-	-	-	-	-	-	11,120	
Plamas,																			
Sacramento,	33	5,280	5	1,600	6,880	-	320	-	-	-	-	-	-	-	-	-	-	6,880	

S. Bernard'o																		
San Diego,																		
San Fran.	4	640	5	1,600	2,240	-	-	-	-	73	11,680	16	5,120	16,800	8,800	3,840	-	19,040
S. Joaquin,	32	5,120	8	2,560	7,680	-	640	320	-	10	1,600	5	1,600	3,200	-	640	960	10,800
S. L. O.,																		
S. Barbara																		
Santa Clara,	32	5,120	28	8,960	14,080	-	320	-	-	8	1,280	2	640	1,920	320	640	-	16,000
Santa Cruz,	27	4,320	6	1,920	6,240	320	-	-	-	7	1,120	5	1,600	2,720	-	-	-	8,960
Shasta,	-	-	1	320	320	-	-	-	-	-	-	-	-	-	-	-	-	320
Sierra,																		
Siskiyou,	-	-	-	-	-	-	-	-	-	3	480	1	320	800	480	-	-	800
Solano,	54	8,640	43	13,760	22,400	-	-	320	320	3	480	-	-	480	320	-	-	22,880
Sonoma,	12	1,920	-	-	1,920	-	-	320	-	-	-	-	-	-	-	-	-	1,920
Stanislaus,																		
Sutter,																		
Trinity,	15	2,400	2	640	3,040	480	160	-	-	-	-	-	-	-	-	-	-	3,040
Tulare,	8	1,280	2	640	1,920	-	-	-	-	-	-	-	-	-	-	-	-	1,920
Tuolumne,	16	2,560	5	1,600	4,160	-	-	-	-	-	-	-	-	-	-	-	-	4,160
Yolo,	18	2,880	4	1,280	4,160	-	-	-	-	2	320	-	-	320	320	-	-	4,480
Yuba,	14	2,240	1	320	2,560	-	-	-	-	-	-	-	-	-	-	-	-	2,560
Mare Island,	2	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	320
Total,	407	65,120	153	48,960	114,080	2,720	2,400	960	1,280	117	18,720	42	13,440	32,160	10,240	5,540	1,280	146,240

In addition to the foregoing, there have been located as follows:

In Mariposa, No. 38, for 320 acres. Informal.

Do. Nos. 583, 584, 586, and 587, size not specified. Informal.

Do. One warrant, size and No. Not given. Informal.

In San Joaquin, No. 402, for 160 acres, properly located and returned.

In Shasta, Nos. 382 and 383 for 160 acres each. Informal.

In Solano, Nos. 151, 245, 246, 274, and 576. Informal.

NOTES ON THE "ABSTRACT OF SCHOOL LAND WARRANT RETURNS" RECEIVED "PRIOR TO JANUARY 1, 1854."

1st. 160-acre Warrants.

In Butte county, Nos. 104, 157, 245, and 246. Informal.

In Colusi county, Nos. 130, 131, 174, and 175. Returned twice.

In Contra Costa county, No. 218, previously returned from Sacramento.

In Marin county, No. 446, previously returned from Yolo.

In Sacramento county, No. 4, also located in Mendocino; and No. 180, returned twice.

In San Joaquin county, Nos. 523, 524, 527, 530, located also in Solano. Nos. 577 and 578, floated in same county. Nos. 63, 64, 65, 66, were floated prior to January 1, 1854; but the returns were not received till since that time.

In Santa Clara county, No. 3, located also in Solano, and No. 371, located previously in Contra Costa.

In Santa Cruz county, Nos. 214 and 215. Informal.

In Solano county, Nos. 52 and 54, floated from Sonoma.

IN Trinity county, Nos. 263, 264, 265 – informal. No. 78, returned also from Yuba.

2nd. 320-acre Warrants.

In Colusi county, No. 226, located also in Sacramento.

In El Dorado county, No. 180, located also in Solano.

In Marin county, No. 142, located also in Santa Clara.

In Solano county, No. 88, located also in Napa.

1ST. 160-acre Warrants.

In Mariposa county, Nos. 47, 48, 239, ⁴240. Informal.

In San Francisco county, Nos. 79, 71, 72, 134, 135, 136, 137, 332, 333, 367, 368, 398, 399, 403, 424, 429, 4340, 431, 432, 444, 458, 472, 473, 485, 509, 510, 543, 544, 550, 620, 624, 625, 648, 654, 659, 660. Informal. (Whole number 36=to 5,760 acres.) Nos. 261, 445, 461, 484, 486, 487, 497, 559, 619. Informal and located twice. (Whole number 9=to 1440 acres. No. 154, previously located in Mendocino.

The above, from San Francisco, were nearly all sent to the late Surveyor General, (without the signature of the County Surveyor), who returned them for informality. They have been recently again received in the same condition.

In San Joaquin county, Nos. 63, 64, 65, 66; floated prior to January 1, 1854; returns received since.

In Santa Clara county, No. 77, previously located in Yuba.

" " 620, " " Sacramento.

" " 575, returned twice from Santa Clara.

" " 576. Informal.

" " 245, 246. Informal. No plat.

In Shasta county, Nos. 382, 383. Informal.

In Siskiyou county, Nos. 646, 658, 661. Informal.

In Solano county, Nos. 51, 534, located twice in Solano.

" " 151, 274, previously located in Mendocino. Informal.

In Yolo county, Nos. 320, 321. Informal and previously located in Marin.

2nd. 320-acre Warrants.

In Alameda county, No. 71, previously located in Mendocino.

" " 64, floated from Santa Clara.

In Mariposa county, Nos. 38, 198. Informal.

In San Francisco county, Nos. 123, 141, 148, 171, 221, 229, 230, 231, 267. Informal. (9=2,880 acres.)

[The above nine warrants from San Francisco, were sent to the late Surveyor General, (without the signature of the County Surveyor), who returned them for informality. They have been recently again received in the same condition.]

Nos. 116, 227, 228. Informal and twice returned. (116 previously from Contra Costa.) 227, 228, previously in Los Angeles.

In San Joaquin county, No. 2, floated in same county.

" " 63, 66, previously located in Mendocino.

In Santa Clara county, Nos. 222, 223, previously located in Solano.

" " 152. Informal. No plat.

⁴ No. 240, according to old records, purports to have been issued August 5th, and located August 3rd, in San Joaquin County. By this return it purports to have been issued July 8, 1853.

NOTE – Nos. 583, 584, 586, 587 and one other, of which no number is given, and number of acres not specified, all informal.

[F.]

MISCELLANEOUS.

CAMP SECO, Calaveras County, December, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

In accordance with the desire of Jno. C. Reid, Esq., County Surveyor of Calaveras, I have the pleasure to forward you a few words upon the geology of the inhabited portion of Calaveras County.

The view that I am enabled to take upon my subject without preparation and upon so short a notice, is neither so extensive nor comprehensive as I should have desired – the few details given having been taken only as notes during recreative monuments, and not with the severe accuracy requisite for the embodiment of a statistical report.

The tract to be thus slightly noticed embraces an extent of country between the Moquelumne river and Middle Fork, and the Stanislaus and North Fork, longitudinally; and latitudinally, the space between the foot hills and the head waters of the San Antonio branch of the Calaveras.

Part 1. The geological basis of the whole of this division is primitive, in which the metamorphic (or altered stratified) rocks occupy, according to a general estimate, say nine-tenths of that tract. The oldest primitive rocks, (unstratified) consisting of modern California, granite, syenite, etc., are found principally in the east; but instances are not wanting in which masses of that rock shows itself at the surface in the middle districts, as a tract of about four square miles at Moquelumne Hill, and another westward of San Andreas.

There is sufficient evidence to show that the appearance of the latter exceptions at the surface proceeded from later igneous causes, and their upheaval took place at a period more recent than the formation of the same description of rock occupying the eastern districts.

Successively after this formation and upheaval, it is apparent that two distinct lines of igneous formation, running a longitudinal direction, appeared through the metamorphic rocks in which they lay; the one appearing in the longitude of the forks of the Moquelumne river – an injection of basaltic trap and greenstone, in a well defined and regular line, throughout the County north and south; the other laying a mile east of the forks of the Calaveras, less regular, but nor less decided, and principally formed through the means of the original bed rock brought into a high state of incandescence. This line runs in a direction from San Andreas to Campo Seco.

It is clear that the tracts called the gold districts, have been subject to a very high and long continued degree of plutonic influence, which extended more or less over all the division herein considered, to a late geological period – most probably to the tertiary era.

Accompanying the graniform rocks eastward, is a group of quartz dikes, upon which many of the gold quartz mines of this County now worked are situate.

Accompanying the trapean system at the longitude of the forks of the Moquelumne, is also a quartz dike group, from the wreck of which has been derived many of the richest placer diggings of the middle districts of this County. And accompanying the incandescent line westward are other lines of quartz, on one of which is the Carson Hill lead, which has been traced southward to a great distance. This group has been the source of much of the wealth of the western placers.

The whole of the quartz dike system is evidently of plutonic origin, and the leads are true metallic veins. These leads run north-west and south-east, but join and branch off from each other irregularly, but in what manner, deeply below the surface, is unknown.

These items show in a very general way the nature of the agency to which the gold districts primarily owe their wealth.

Part 2. Subsequent to this epoch, (the primary state of this tract, the features of which were apparently progressive up to the tertiary geological era without super-incumbent change,) the vast auriferous beds of (marine) conglomerates, forming partially the superficial wrecks of the above, have been deposited. Posteriorly arose the advent of the great volcanic period, and more recently the upheaval of the entire continent, after the drift period.

A great extent of the country in Calaveras County is covered with conglomerate or gravelly deposits, say to an area of 600 square miles in the aggregate; the principal accumulations thereof exist in the middle and western districts, but more abundantly near the extreme foot hills near the western boundary of the County, than elsewhere. Large conglomerate accumulations exist near the forks of the Calaveras and Moquelumne Hill – also near San Antonio, Vallecito and Murphys.

Many of these deposits are covered by volcanic products of different ages and character, but the principal accumulations of that nature, in point of superficial extent, exist far into the eastern district herein treated of, - where, near the head waters of the San Antonio, a geographical area of about 400 square miles may be seen in uninterrupted succession from one point of view, laying in a general direction from N. E. to S. W. This extensive formation consists of lave form products, in many well defined conformable layers of immense superficial extent, and from 60 to 200 feet or more in general depth, according to the nature of the uneven surface of the primitive rocks or conglomerates upon which it rests. Near Pleasant Valley, 10 miles west of Double Springs, exist similar formations of lesser extent. Much of the same is also found near Moquelumne Hill.

Trachytic lava is found at the Calaveras Peak near double Springs, at Moquelumne Hill, and Vallecito, forming excellent, durable and fire-proof building stone. A species of clink stone is often found with the volcanic formations. The principal part of the volcanic products have been subaqueously deposited.

Part 3. Micaceous altered rocks most commonly exist in the vicinity of the granites. Talcose schists are usually found near the great quartz leads, to an inconsiderable extent, but where occurring are generally accompanied by richer auriferous deposits than common. There are talcose altered rocks containing lime, westward of the Calaveras Peak. These rocks are also occasionally alkaline. Plutonic

alkaline rocks exist near Muquelumne Hill. Dark colored clay slates, highly indurated and crust line, and quartz ore occur extensively almost everywhere in the tracts under consideration. Light colored chloritic clay slates, containing veins of quartz, occur west of the western quartz group.

Coinciding in general direction and position with the middle plutonic dike, (mentioned as being in the longitude of the forks of the Moquelumne,) exists an extensive bed of white or grayish marble, with blue veins, running entirely through the County southward. A species of travertine exists adjacent thereto, in small quantities – the result of the denudation of the carbonate.

A bed of Calaveras (andesitic) porphyry lies near the forks of the Moquelumne, consisting of whitish nodules, in black or gray base of angite or hornblende. This as well as the marble (carbonate of lime) before mentioned, is a rock beautifully adapted to building purposes.

Metamorphic limestone is found near the Calaveras Peak, making tolerable good lime for building purposes. The Bear range is supposed to contain magnetic iron, as detached specimens have been found adjacent, on the surface. Platinum has been found in small quantities near the same locality. Gold bearing quartz and placers are also found in this range, but hitherto of limited extent.

Part 4. Within the Bear range are several fine valleys of small extent, well adapted for the purposes of agriculture. In one case a sulphureted spring exists. Sulphur springs exist in many parts of the County with a higher degree of heat than ordinary springs.

South of the head of the San Antonio river, a very porous, granular and coarse grained granite abounds, containing fertile elements of vegetation in an eminent degree. Numerous springs of the purest water constantly issue therefrom. Several small valleys within this district are extremely prolific of vegetation. Gigantic pine timber abounds. The celebrated Mammoth Grove is on a basis of this rock in this locality.

Fine valleys of small extent are to be found upon the granite formation between the Licking and North Forks of the Moquelumne, beyond Silver mountain, north-east, highly capable of cultivation, with abundance of oak timber.

The volcanic formations are nowhere fertile, principally from the extreme porousness of these rocks.

The prolific nature of the soil of the valley of the Calaveras is so well known that it need scarcely be commented upon. It appears to proceed principally from the detritus of the felspathic and clay slates which it traverses in the middle districts.

The general prevention to the agricultural development of the mountains, appears to arise principally from the want of irrigation; more especially when the superabundant presence of one ingredient, as an alkali, iron oxide, or other mineral exists in the soil, requiring a corresponding corrective to latent as well as solar heat, tending to the retention of moisture. For example, I have observed that in our climate, soil highly oxidized with iron, too quickly imbibes the solar heat, and parches and destroys vegetation more rapidly in an exposed than in a sheltered situation from the direct power of the sun – as may be seen by comparing the north and south banks of any of our large mountain streams. These effects would be modified by irrigation in the situations where desirable.

Generally speaking, the superficial covering of the rocks in the mountains (if by the natural process of decay,) is in a state of sub-soil, but wherever the retention of moisture takes place for a longer period than in ordinary cases, as in the valleys of the extreme eastern or western districts, it becomes highly susceptible of cultivation.

I take the liberty with these few imperfect remarks, to close.

Having the honor to remain, Sir,
Your most obedient servant,

WM. PATTON.

U. S. SURVEYOR-GENERAL'S OFFICE,
SAN FRANCISCO, Nov. 11, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

Your letter of the 7th inst. has just come to hand, and the contents duly noted.

It will not be in my power to furnish you with the information desired until the report of the Commissioner of the General Land Office to the ensuing Congress shall be published, which will also embrace my own annual report to the Department, together with a map exhibiting all the data asked for in your letter, so far as the public surveys have been completed, and which it is in the power of this office to give.

In regard to the subject of "swamp and overflowed lands," relating to which you wish a "statement of what would be considered sufficient to establish the fact that any *sub-division* is swamp and overflowed lands, or subject to overflow," I have only to say that such lands are not sub-divided, but simply separated from the public domain by traverse lines, running along their margins, which lines are delineated upon the township plats, thus exhibiting the aggregate area of such lands as are in each township.

For the necessary information in relation to the "Geodetic Surveys" of the State, I refer you to section 4 of the "Act to provide for the survey of the public lands in California, etc.," approved March 3rd, 1853.

Very respectfully,
Your obedient servant

JOHN C. HAYS,
U. S. Surveyor-General, California.

SAN FRANCISCO, Nov. 22, 1854.

Hon. S. H. MARLETTE,
Surveyor-General:

Sir:

I am in receipt of your favor of the 18th inst., and am sorry to find that you did not see the correction which I sent to the times and Transcript the day after my original communication appeared. The longitude of Holladay & Warner's establishment I gave as 119 degrees, 58 minutes and 45 seconds, which would bring the Mormon station to very near the junction of the 120th meridian and the 39th parallel. Unfortunately, a typographical error made my conclusions appear unwarrantable. An error was also made in stating Eddy's air-line distance at fifty miles from Placerville to the Mormon station. It should have been sixty. Such he believed it to be, and therefore concluded Carson Valley to be from twelve to fifteen miles beyond the State line.

The pass we call Ebbets' pass, (in memory of Major Ebbets, who went over it in the spring of 1851, with a large train of mules, and who found no snow there in April) I believe to be the lowest and easiest of access between the 37th and 39th parallels. It lies a little south of 38 degrees 30 minutes. We saw it, at a distance of some ten or twelve miles to the east, from a hill above Walker's river, and were to have returned by it; but on our arrival in Carson Valley, on our return journey, Lieut. Moore and Major Ebbets left me in charge of the mules, and returned to California. It was my intention, when the mules had sufficiently recovered and the weather moderated, to have returned by Ebbets' pass; but Lieut. Moore succeeded in getting across the Johnson road so well that he sent me word to push across the mountains at once, by which the exploration of this pass was lost for the time. It appears to be to the north of the head waters of the Mokelumne.

Should you be in San Francisco, I should like to show you a sketch I have of it, as well as its position with respect to the forks of Carson and Walker's river.

However, Eddy's map shows a river running from Pyramid lake into the Yuba or Feather river, which he calls Wilkes river, and the pass in the mountains, Kivkennon pass. Is this a fact? It appeared for the first time in Eddy's map, and has never been commented on. If it is true, here is a pass lower than the level of Pyramid lake, which is one of the lowest points of the Great Basin. Mr. Cleal, the Surveyor, who, I believe, was formerly County Surveyor at Sacramento, says it is a fact, and that he has been through it. If so, then this must be the best pass in the mountains, I imagine, for a railway or mail road. At any rate, it ought to be explored without delay.

If there is any other information I could render of service, I shall always be happy to do so, and am, sir,

Yours faithfully,

GEORGE H. GODDARD.

Extract from a letter from George H. Goddard, Civil engineer, dated

SAN FRANCISCO, Dec. 8, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Dear Sir:

Your favor of the 25th ult. came duly to hand, and I am very much pleased to think there is a probability that something may be done this season in obtaining geographical knowledge of the mountain district and eastern frontier. Ever since my residence in this country, I have taken great interest in Mariposa, Tuolumne, and Calaveras counties. I collected together a large amount of geological detail, and, up to the period of Eddy's State map coming out, I was always in hopes that positions would be located thereon sufficiently accurate to plat these surveys in a connected manner. Unfortunately, however, all the longitudes given by Eddy, from his own observations, are so very inaccurate, that it is of little or no service for any practical work. What we want is a fairly correct map of the mountain district, and then a vast amount of information, which is now detached and lost, could be rendered of the utmost service. I am not making a map, having the results of the land survey as the base upon which I rest my own surveys and reconnaissances. I wish to include in my map all the information that can be got as far as the 112th meridian, or Salt Lake City, so as to make the map available for marking out any lines of communication, by railroad or otherwise, and I think such a map would be of great practical utility.

Now, if we can include in it the results of a survey of the eastern boundary, and could get any appropriation from the Legislature, it would be of great help. At present, all the results of Trask's labors are, in a great measure, lost, for want of a map to lay them off upon, and I think there are good grounds to ask for a small appropriation, if it were for this purpose alone.

Eddy's map, for instance, places both Sonora and Mokelumne Hill about fifteen degrees, [This, evidently, should be minutes. S. H. M.] too far to the east and Marysville about five degrees. [Minutes.] These I know, and most of the other mountain cities I have reason to believe are likewise wrongly placed.

At the time I crossed the Sierra, last Christmas day, there was nearly four feet of snow on the summit, at Johnson's cut-off road, and the entire distance from Carson Valley to four miles from Placerville the ground was white with snow. Still, I believe that a road, passable at all seasons, could be got with far less difficulty than across the Alps in their easiest passage.

The present roads have not been selected for the lowness of the passes, but to avoid sidling round a mountain. The teamsters go up one side and down the other.

The central ridge overlaps, leaving a number of the valleys diagonal with the axis of the chain. The one I spoke of in my former letter appeared particularly suitable for a road, both for its lowness, its central position, and its leading at once to the divide of Carson and Walker's river.

OFFICE OF THE BOARD OF U. S. LAND COMMISSIONERS,
San Francisco, November 24, 1854.

Hon. S. H. MARLETTE,
Surveyor General:

Sir: -

Your communication of the 22nd inst., relative to a list showing the lands granted in California by the California Government under the Mexican domination, with specifications of the number of the case on the docket of the United States Land Commissioners, etc., is duly at hand, and contents noted with care.

In answer I have the honor to state that the present (new) Board has adjudicated 315 claims, and will, perhaps, adjudicated say fifteen more, in the course of ten or fifteen days, making in all about 330 cases, of which the details, according to your expressed desire, could be furnished you by the 6th or the 10th of December next.

This work is not a copy or a transcript of any document on file in this office, but must be compiled from the records and papers on file, and will constitute about one hundred pages of demi paper, which must be ruled specially for that purpose, and when the writing is completed, the whole to be bound in a book forming a kind of a docket on a "tabular exhibit form." As per specimen at foot of this.

The whole of this work can be furnished, including paper, ruling, binding, compiling the work, writing it out and certificate of the Secretary, at the rate of one dollar for each case, say from \$315 to \$330, more or less, as the number of the cases to be decided up to the day of the closing of the work would require.

Should you authorize the work to be done, please specify whether by the words "the quantity granted" you mean the quantity granted by the Governor or confirmed by the Board, inasmuch as at times the quantity granted and claimed, varies from the quantity confirmed by the Board.

In regard to the locality (present County) in some instances the petition of the claimant does not show it; also, in some instances the Surveyor General cannot furnish the district where the land is situated, but this is seldom the case.

I am, respectfully,
Your obedient servant,

GEO. FISHER,
Secretary.

SAN FRANCISCO, December 14th, 1854.

Hon. S. H. MARLETTE,

Surveyor-General:

Sir: -

In compliance with the request which you were pleased to make in reference to the important subject of facilitating intercommunication with our sisters in the Union, by ascertaining the most practicable route for the establishment of a stage road and a railroad, I will, with the greatest pleasure, give you my limited stock of information, and only regret that it is so limited. It is to be hoped, however, that this fact, the fact that I am unable to afford you the information which is of so much importance to this State; and that too, after having made many explorations myself and consulted many which have been made by others, I am yet unable to give you the exact statistical facts to the altitude of the numerous passes through which the various advocates would like to have the great international road.

I would merely wish to state in advance, that I have become so much wedded to one route, and have permitted my feelings to become so much attached to it that you must look with due distrust upon all I may suggest; and it is to be hoped that the Legislature will assist you by making a liberal appropriation, in order to test, with unerring instruments, all of which is now so doubtful.

I am in favor of the route through on the parallel of latitude 41 deg., not strictly because it is the actual center of our possessions, but because I believe it will present fewer obstacles than any other.

I believe that there is a depression on this line, and consequently there is less snow and less gradient, and that a road can be built with less and fewer deflections than on any other route north of the ---- River.

This belief has been confirmed so far as winter explorations can confirm it; it now requires but the test of instruments; that test has only been applied to a limited extent, and, so far as applied, has added confirmation to this conviction.

At the same time in which I made the exploration through Noble's Pass, last winter, and found no obstructions from snow, it was found impracticable to pass through the San Fernando and Tejon Passes south; and it was also found that parties who set out from the great Salt Lake to go south to San Bernardino, only encountered snow as they went south, and that it increased up to the rim of the Great Basin, at which point it was nearly impassable.

Thus showing and proving that there is a depression in the Sierra Nevada, in the Basin, and, I believe, in the Wachatch and Rocky Mountains, on the parallel of latitude 41 deg.; and that the depression is sufficient not only to overcome the difference in latitude, but to bring it up to a temperature in which there cannot be as much snow. And, furthermore, there is none of those abrupt foot-hills at Noble's Pass, which will prove to be a great obstacle at all other points in the Sierra Nevada, in locating and grading a road.

I deem it of the utmost importance that all the routes should be subjected to the test of instruments. And I deem it of paramount importance that the eastern line of our State should be run with a view of State's jurisdiction. There is now a population on the eastern side of the Sierra, on and adjacent to our State line, and the question whether

or no they are Californians or Uthaians can only be determined by the officers of the State, whose province it is to make the surveys, and fix the boundaries and our line.

Very respectfully,
Your obedient servant,

O. M. WOZENCRAFT.

THE PLAINS AND CALIFORNIA.

The undersigned is now collecting the materials for, and will, in the course of the summer of 1855, publish a book which will contain from 300 to 500 octavo pages – the book to bear the above or similar title, and to be published upon the plan and for the objects below set forth:

The first part of the work will constitute a complete guide to the traveler, from the valley of the Mississippi to the eastern line of California, and will minutely set forth the geographical and topographical features of the route – the distance from point to point where conveniences for camping exist, and the best information that can be obtained as to the ordinary expenses of the trip.

For the purpose of collecting information for this part of the work, the undersigned will, in May of 1855, fit out and accompany an expedition, which will start from a convenient point in the valley of the Sacramento, and cross the Sierra Nevada at Noble's, or some one of the passes in that range of mountains between Noble's and the volcano road to Carson Valley, and proceed thence, by the way of Salt Lake City to the Missouri River, by the main emigrant road. The expedition will be accompanied by a competent civil engineer, who will critically examine the road with reference to its grade at various points, and other facilities for and probable cost of such improvement at points now difficult to travel over, as would render the whole a good wagon road. Astronomical and Meteorological observations will be taken along the route, together with a careful measurement of the whole distance in miles, by the actually traveled road from point to point.

Arrangements have been made by the undersigned by which he will, from time to time during the present winter, be informed concerning the facilities for crossing the Sierra at the various points above referred to; and from such information, together with careful personal observations hereafter to be made, the precise point of crossing will be fixed upon.

The information gathered as above, carefully arranged and elaborately set forth, will constitute the leading features of the first part of the work.

The second part, it is designed, shall be a repository of practical information, for those who desire to make California a permanent or temporary residence, and will contain a condensed historical sketch of the State from the date of the discovery of the gold mines, down to the year 1855; a full and practical account of the various modes of

obtaining gold in the placer diggings and quartz mines, with calculations, based upon reliable data, as to the profits of gold mining, either in placer diggings or quartz veins, and a description of the various kinds of machinery now in use in collecting gold from the mines of California. The agricultural, commercial and general resources of the State, will receive special attention, and the conclusions which may be arrived at concerning any of the various branches of industry treated upon, will be based upon the best data that can be produced.

For the purpose of carrying out the design of the second part of the work, the undersigned will, in course of the present winter, visit, if possible, every County in the State, and take such notes as may aid him in the correction, if correction be found necessary, of such statistical and other information as he is now possessed of, concerning the topics above referred to. By such a course he expects to be enabled to obtain further and better information than could be otherwise procured.

The objects of this work are solely to present to the people of the States east of the Rocky Mountains, reliable information concerning the facilities of emigrating hither across our own territory, and a true picture of California as it exists, without ornament or varnish. Having resided in California since early in 1849, and during his residence been diligent in the collection of materials which will aid him in carrying out the above plan, the undersigned feels confident that, with these and those he expects to collect in the manner above set forth, the work will fully attain the object desired.

The work will be published in New York as early as October of 1855.

GEORGE H. CAMPBELL.

SACRAMENTO, December 15, 1854.

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